Wildcat! 4

wcBILLING Sysop Guide

wcBILLING

Sysop Guide

(5/16/95 printing)

P.O. Box 2264
Bakersfield, CA 93303

Tech. Support (805) 873-2550 —Office & Sales (805) 873-2500
BBS (805) 873-2400 —Orders only (800) 999-9619

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This manual was written, edited and composed in Microsoft Word for Windows version 6. Final 1800 dpi camera-ready pages were printed on a LaserMaster Unity 1800 XLO Laser Typesetter. The body text is set in 10 point Futura Light, with headings in Contemporary Brush.

The Futura family of typefaces was designed in 1929 by Paul Renner. Its geometric forms are characteristic of the Art Deco style of the 1920s. Its readability and pleasant proportions have earned this classic modern typeface an enduring popularity.

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Until we receive your registration information, our staff cannot provide you with technical support through our BBS or by phone.

Benefits of sending your registration

- Free technical support by phone Monday through Friday between 9 a.m. and 5 p.m. Pacific time
- Automatic notification of major program updates
- Additional program updates at a reduced rate
- 24-hour access to the private multiline Registered User's HQ BBS at Mustang Software
- BBS access to download utility programs written by MSI staff and other authors which enhance and add features

Technical Support Services

wcBILLING is designed to be easy to use, and this manual should contain the answers to most of your questions. Read it first. Make use of the I help key for tips and explanations. If you're still stumped, technical support is only a phone call away.

MSI HQ! BBS

You may first want to call our private *Wildcat!* BBS for Registered Users at 805-873-2400, and leave a quick question for our technical staff. This is a particularly useful way to receive expert guidance with the more advanced features.

On-line services

CompuServe

Another alternative is CompuServe where we are a part of the PC Vendor Support Forum. You reach us by typing GO PCVENA and then selecting Subtopic 9.

GEnie

You can also find us on GEnie, the on-line service from General Electric. Go to the MUSTANG Round Table with the command MOVE 680.

America On-line

MSI's support section on America On-line is called MUSTANG and can be reached with the keyword MUSTANG.

Internet

Our Internet mailing address for tech support is support@mustang.com.

Voice support

If you are still unable to find the answer to a question—or if you need a quick explanation, please call us. Our business hours are Monday to Friday from 9 a.m. to 5 p.m. Pacific time.

When calling for support please:

- Have your registration number handy, from the card bound inside your *wcBILLING* manual.
- Record your Registration number here:
- _____
- Be at your computer with your manual handy.
- Be ready to describe the problem in detail.
- If possible, be ready to duplicate the problem on your system.
- You can call technical support directly at (805) 873-2550.

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We also have a large number of BBS systems carrying the MSI SupportNET echo conferences throughout the US and Canada, and around the world. These BBSs are located in Australia, the United Kingdom, France, and Norway. The MSI SupportNET contact points outside the US are:

Location	Distributor	BBS Phone
Australia	Banksia Info. Tech.	+61 2-418-7693
France	Maxotex	+33 1-45-34-6430
Scandinavia	PC Security	+47 2-58-3358
United Kingdom	Telesystems	+44 49-489-1903

You can download a list of MSI SupportNET BBSs in the U.S. from the MSI HQ BBS.

Questions Other Than Technical Support

If you have questions related to shipping or other areas handled by our office staff you should contact us at 805-873-2500. Our office staff can help with changes to your registration information and handle all non-support questions regarding our product line.

We also have a toll-free number for questions regarding new product purchases or updates. You can call 1-800-999-9619, Monday to Friday, 8:00am to 5:00pm Pacific time. Our mailing address is Mustang Software, Inc., PO Box 2264, Bakersfield, CA 93303.

Software Updates

wcBILLING is constantly undergoing enhancements and revisions. This is normal software maintenance. We encourage you to keep your software updated—we can provide the best support to users who are running the current major release. The cost is minimal and the benefits are great.

About the manual

This manual describes *wcBILLING* operation and features at the time of publication, and does not reflect changes made to the program after the manual was completed. Be sure to check the README.WCB file on your *wcBILLING* installation disks. This file contains important information about last-minute changes in the program, additional features, and errors or omissions in the manual.

Typographic Conventions

The following type styles are used throughout this manual to represent keys you press and information you type. Note the difference in appearance between a Zero "0" and the uppercase Oh "O".

ENTER	Press this key.
ALT Z	Press all these keys at the same time
`CD \WILDCAT`	Type this command exactly as shown. Remember to press your ENTER key after each line.
Click	Click the left mouse button once.
Double Click	Two rapid clicks of the left mouse button.

1 - Introduction

A writer lives in awe of words for they can be cruel or kind,
and they can change their meanings right in front of you.
They pick up flavors and odors like butter in a refrigerator.

John Steinbeck

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What is wcBILLING?

wcBILLING is a user billing and accounting module designed to operate with your *Wildcat!* BBS and interface with your business accounting software. It provides time and credit billing options, with a choice of output and reporting formats. You can send e-mail invoices to your callers, or you can use ready-to-print invoices from your local office supply store. You can even output data to comma-delimited "mail merge" and DBF files and import that data into your accounting software package, spreadsheet or database application.

You can charge callers for time on-line. You can also charge for many individual functions:

- Sending an e-mail message
- Downloading a file
- Entering a door
- Chatting with other callers through *wcCHAT*.

wcBILLING consists of a single program that handles configuration and processing tasks. You can process billing information manually from the program's menus, or automatically from a batch file using *wcBILLING*'s command language. You can easily integrate *wcBILLING* processing into your regular system maintenance events.

wcBILLING is not guaranteed to turn your BBS into a money-maker — that part's up to you. However, its flexible billing options and automated record-keeping and reporting tasks can make it easier to run a "pay" BBS.

System Requirements

wcBILLING is designed to work with version 4.11 or higher of *Wildcat!* BBS. Earlier versions of *Wildcat!* are not supported. Call Mustang Software Inc. at 805-873-2500 or 800-999-9169 for information about upgrades.

In addition to the basic system requirements for *Wildcat!* from your Sysop Guide, the following additional components are recommended:

- Printer —dot matrix, inkjet, laser, etc., for printing of invoice forms.
- A supply of plain or preprinted invoice forms, from your local office supply store.
- An accounting software program, or the services of a professional accountant, so that proper business records can be kept.

Skills you need

We assume you have already set up your *Wildcat!* BBS, and are familiar with the basics:

- Setting up menus
- Assigning security profiles
- Managing files and messages,
- Setting up and running scheduled system events.

A knowledge of basic bookkeeping and accounting procedures and tools is strongly recommended. There is a lot more to accounting than simply printing and mailing invoices and cashing checks. Your service may be subject to local sales tax, and your business revenues will likely be subject to income tax as well.

This book is not designed to teach you how to set up and use an accounting system or run a small business —your local community college can do a much better job of that. Libraries and bookstores also contain a wealth of information on the basics of small business accounting.

Taxation and financial statements

wcBILLING has no provision for calculating sales tax on transactions, and cannot differentiate between taxable and non-taxable items by itself. If your BBS is subject to sales tax, you have some options:

- Calculate the sales tax yourself and add it into your billing rates, or

- Export transaction data from *wcBILLING* into a point of sale or accounting program designed for this purpose.

While *wcBILLING* can create fairly detailed reports and invoices, it is not designed to provide complete financial statements. It merely provides the raw material: the collection of transaction data. Properly designed accounting software is designed to manage this data and provide meaningful reports.

You may also need to retain the services of a professional accountant or business consultant. Accounting errors can be expensive and time consuming to rectify, particularly if they result in unforeseen tax liability. To protect yourself, you should seek professional guidance on any areas of commercial law and taxation you do not fully understand.

Installation

wcBILLING comes with an installation program that automatically creates the necessary directories, and copies the program and support files you select *to the correct location. You cannot* install *wcBILLING* simply by copying the files from the installation diskettes to your hard drive since the files are stored in compressed format.

You can use the installation program for an initial installation, or to re-install your *wcBILLING software. Before you begin* installing *wcBILLING*, we strongly recommend that you make a backup copy of the installation diskettes and keep them in a safe place. Review your DOS manual for help if you are unsure how to make backup copies of your diskettes.

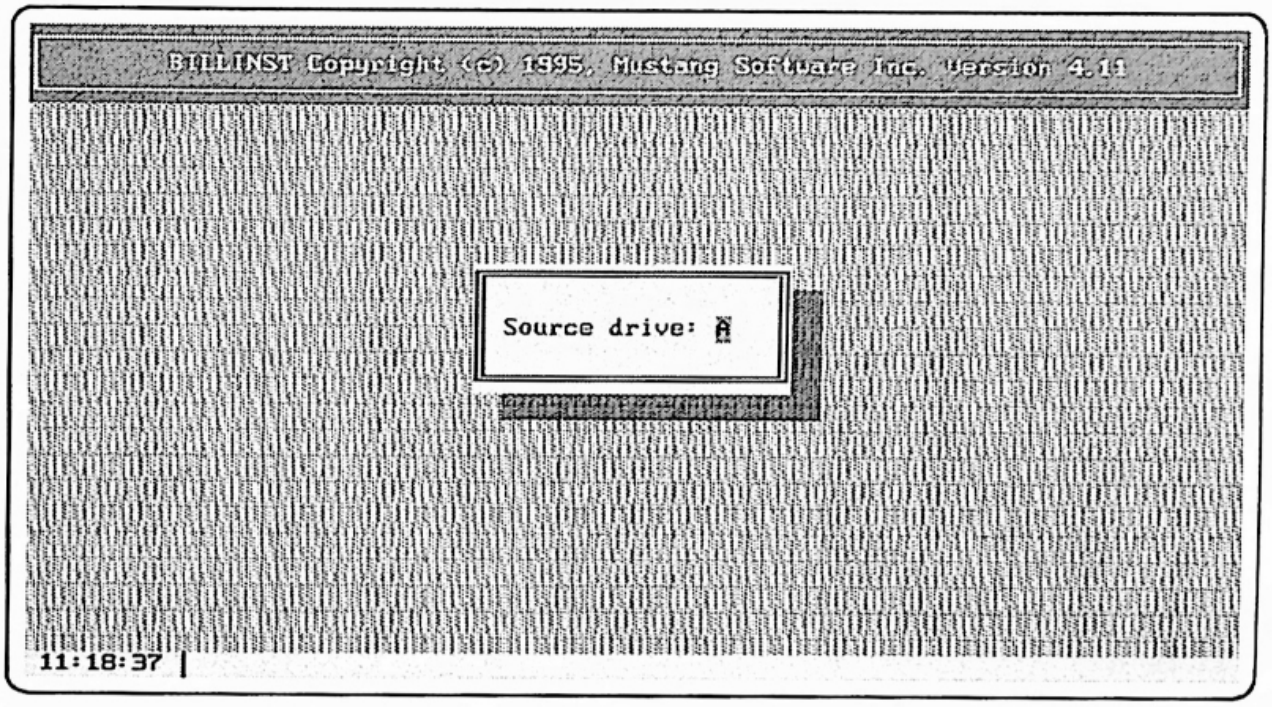
To install *wcBILLING*, place the disk labeled "INSTALL" in your floppy drive and type

```
A: ENTER
```

If you are installing from a different drive, enter the proper drive letter. Then type

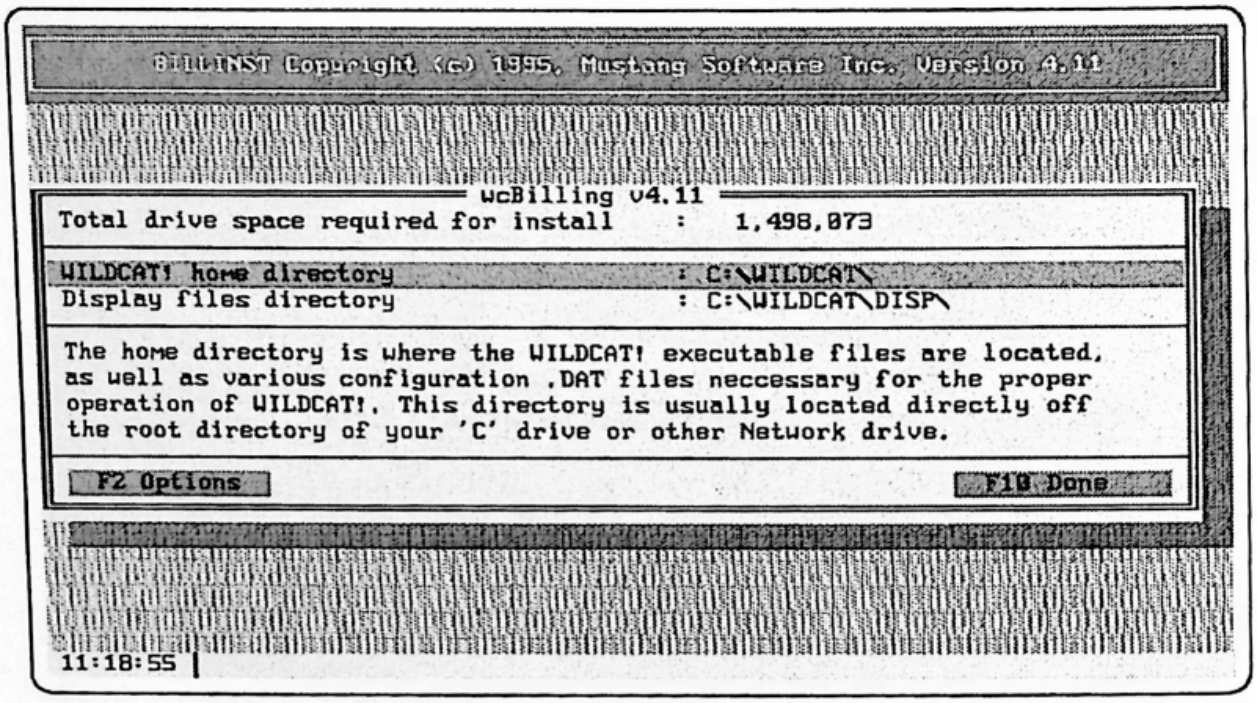
```
BILLINST ENTER
```

Your screen should now look something like this:



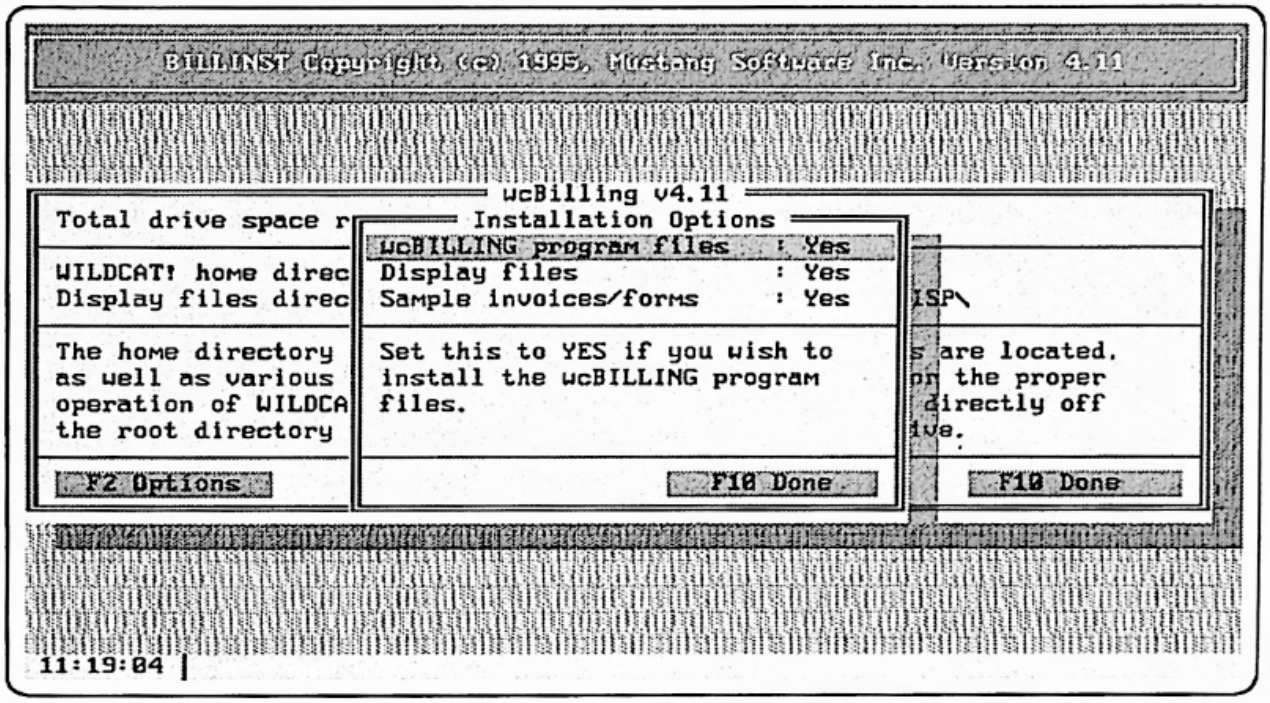
Source Drive is the drive letter from which you will be installing *wcBILLING*. If you are installing from diskettes in floppy drive A:, enter A in this box. If you are installing from drive B:, enter B, and so on. Press ENTER to continue.

The next screen shows the amount of drive space required for the installation. It also allows you to select which files you want to install at this time. A help window provides additional information about the files you are selecting.



The correct place to install all *wcBILLING* Program files is your *Wildcat!* home directory. The default directory is C:\WILDCAT\. If you have installed *Wildcat!* on a different drive or subdirectory, enter the correct information here.

The default installation installs *all* program and support files, and this is the recommended procedure for a first-time installation. Press F2 to see installation options for each set of files. As with the previous window, the **Installation Options** screen explains each option. Use your ↑ and ↓ keys to move the selection bar up and down the list, and press ENTER to change each option. Notice how the help information changes as you move the selection bar.



When you have finished selecting installation options, press F10 to return to the main installation screen. Press F10 again to begin the installation.

The installation process will copy the program files to your *Wildcat!* home directory, and will create any required subdirectories for configuration and support files. The paths created are the proper location for configuration and support files, and shouldn't be altered.

The installation program may ask you to insert additional diskettes to complete the installation process. Each original diskette is clearly labelled. The installation program will display additional screens of tips and information while the *wcBILLING* files are being copied to your hard drive.

In some cases, changes may have been made to the program after the manuals were printed. The final screen displayed by the installation program shows you important information on last-minute changes to the program or documentation. You have the option to print this file right now.

We recommend you do so, and keep the printed copy with your *wcBILLING* User Guide for future reference.

What to do if you have problems installing wcBILLING

If you have problems installing *wcBILLING*, here are a few things to check before calling Technical Support.

First, be sure you are installing *wcBILLING* from DOS. If you are using Windows, exit Windows completely before beginning the installation.

If you are running DESQview, close all DESQview windows before installation. This will insure that no other program running at the same time is interfering with the installation.

If you are still having difficulty after trying these tips, or if you're just unsure about the installation process, you can call MSI Technical Support for assistance.

Starting wcBILLING

You should always run *wcBILLING* from your WILDCAT home directory (normally C:\WILDCAT). *Wildcat!* and *wcBILLING* use a common set of configuration and data files to communicate with each other, so *wcBILLING* must always be started from the correct directory.

Operational Considerations

Since *wcBILLING* must interact intimately with the *Wildcat!* databases, it must be run properly.

wcBILLING determines whether your system is capable of multi-line operation by checking your *MAKEWILD* network type and your node information file. You should **never** run *wcBILLING* at the same time as *Wildcat!* with the network type set to "No Network" in *MAKEWILD*. Refer to Chapter 7 of your *Wildcat!* Sysop Guide for information on Node 0, and on setting up your single line or multi-line system for network operation.

wcBILLING should always be started from the *Wildcat!* home directory and should be run with a **unique Node ID number**. It may be run from any PC on a local area network, or in a DESQview window, as long as the WCNODEID environment variable has been set as a unique Node ID number. Review Chapter 7 in your *Wildcat!* Sysop Guide for more information on network operation and multi-line setup.

wcBILLING user interface

wcBILLING follows the same data entry conventions as most other *Wildcat!* programs and utilities. You can use the following editing keys and mouse commands in *wcBILLING*:

Keyboard Control

Key	Operation
F1	Display Help screen
F2	List fields in selection list items
F10	Accept the screen entry (save selections), begin processing
SPACE	Toggle field choices if multiple choice
←	Move left one space in current field
→	Move right one space in current field
↑	Move to previous field
↓	Move to next field
ENTER	Move to next field
⇥ (tab)/ SHIFT ⇥	Move forward/back one field
HOME	Position cursor on first character of current field, or the top of a list
END	Position cursor at the end of current field, or the bottom of a list
INS	Toggle insert/overtype mode. The cursor size indicates the status of the toggle.
← (backspace)	Delete character to left of cursor
DEL	Delete character immediately under cursor. The Backspace and Delete keys work the same regardless of the status of the Insert key

Some screens use ALT keys for specific applications. Watch the status line at the bottom of the window or at the bottom of the screen for additional options.

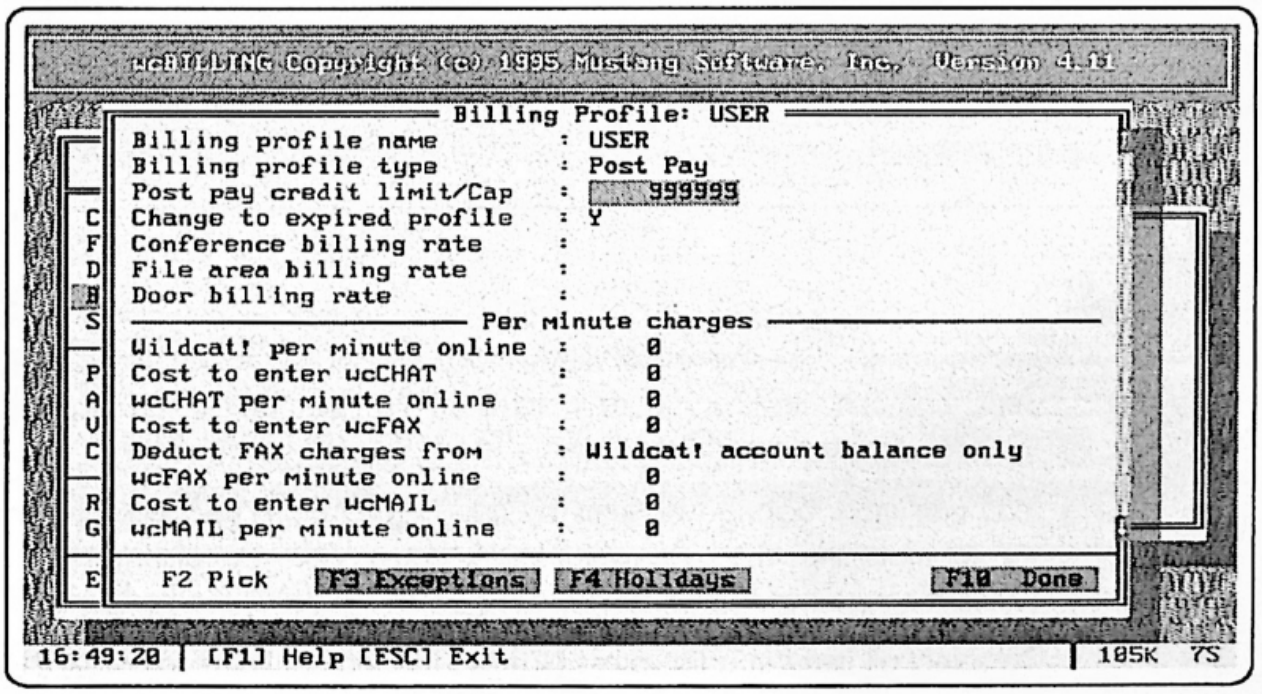
Mouse Control

You can use a mouse to select many options in *wcBILLING*. All fields are mouse sensitive, as are all selection list items. You can turn selection list items (marked with a dot) on and off by clicking on the desired item with the left mouse button. The right mouse button is equivalent to the ESC key on the keyboard. Clicking both mouse buttons brings up the help screens.

Entering data

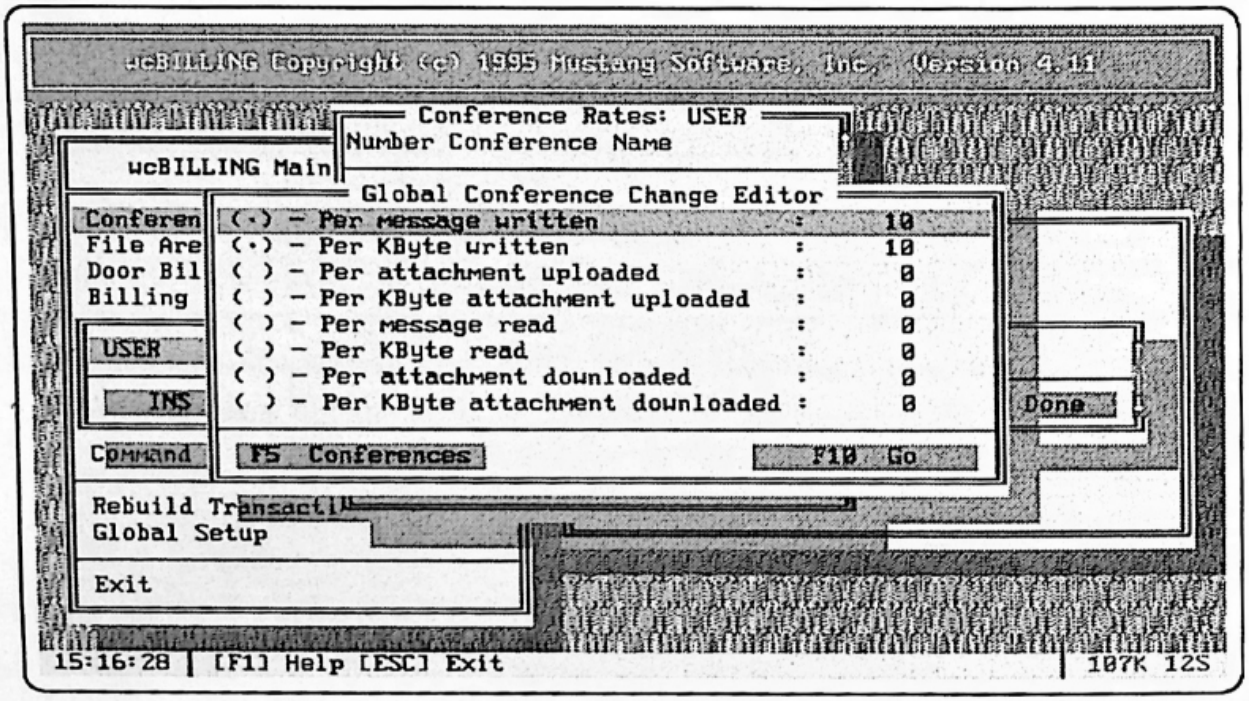
Text entry fields

The first type is a simple fill-in-the-blanks text entry field. You can move around from field to field using the cursor keys or mouse, and enter the information requested by typing it from the keyboard. The following illustration from the Billing Profiles screen is an example of a text entry field.



Pop-up Windows

The following illustration from the Conference Billing Rates screen is an example of a Pop-up Window associated with a data entry field.



A pop-up window lets you select one or more entries to include in your configuration. Use the arrow keys move the highlight bar from item to item. You can use your mouse to scroll the list. To make a selection, double-click on the desired item.

You can mark a range of items by using F7 to mark the beginning and F8 to mark the end. WordStar mark commands are also supported. Once a range has been marked, use SPACE to toggle all marked items.

To select all items in a list, press ALT S. To clear all items, press ALT C.

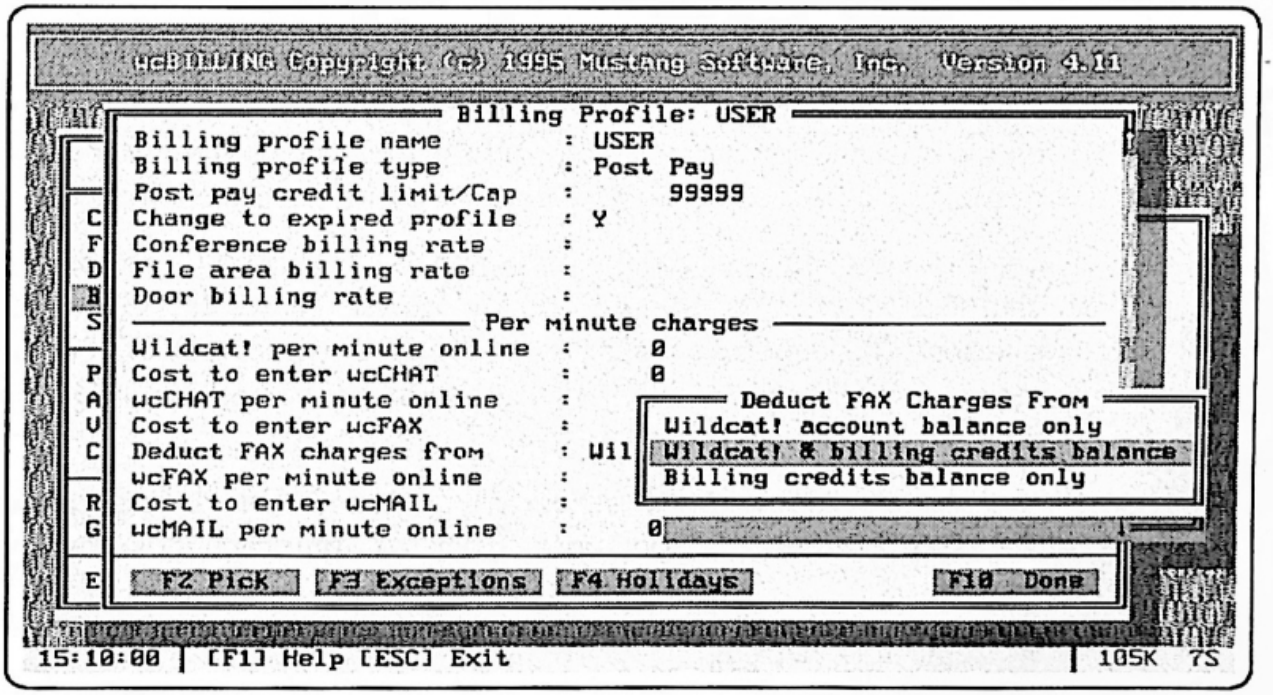
Selection Lists

The third type of data entry field allows you to select a single entry from a multiple choice selection list. Press the SPACE to toggle through the choices, or press F2 to pop up a selection list.

To select an entry from a selection list,

- Move the mouse or highlight bar to the entry desired, then
- Click the mouse button or press ENTER.

The following illustration shows a Selection List that appears on the Billing Profile screen:



How wcBILLING works with Wildcat!

When a caller logs on to the BBS, *Wildcat!* checks to see if a billing profile is associated with the caller's security profile. *Wildcat!* uses the information in the billing profile to charge the caller's billing credits for on-line activity.

Each time a caller uses a part of the BBS for which charges apply, *Wildcat!* checks to see if the caller has enough credits in the **Credit Account** field of his user record. When the activity is complete, *Wildcat!* adjusts the caller's billing credits. You can even *add* credits to a caller's account for any activity you want to reward. When a caller's credits are exhausted, or the credit limit is reached, *Wildcat!* disallows all further chargeable activity and, if you wish, changes the caller's security to the "expired profile" specified in *MAKEWILD* Security Profile definitions.

The external programs supplied with *Wildcat!*, *wcMAIL* and *wcCHAT*, and the optional program, *wcFAX*, also act directly on the caller's billing credits for on-line activity to allow per-minute and per-use charges.

Besides updating the caller's billing credits, *Wildcat!* records each chargeable activity in a transaction log located in *wcBILLING*'s working directory. This directory is located directly under your WILDCAT home directory (normally C:\WILDCAT), and must be named BILLING. Each node creates its own billing log.

You should run *wcBILLING* periodically to import these billing logs into *wcBILLING*'s transaction database. From the transaction database, you can:

- Generate invoices
- Export transactions to your accounting software for further processing,
- View all transactions for a specific user
- Modify transactions or add transactions of your own.

You can use *wcBILLING*'s command language to automate all of these procedures.

So, in a nutshell, *Wildcat!* records transactions and adjusts the callers' billing credits for on-line activity, while *wcBILLING* allows you to manage the results of each transaction and generate invoices and reports.

2 - Setup

Money is like a sixth sense without which you cannot make a complete use of the other five.

Somerset Maugham

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Getting Started

If you are using *wcBILLING* outside the USA or Canada, you may first need to set basic operational parameters for numeric and currency information, from the main menu command **Global Setup**.

Next, you will define how much to charge your callers for access to the various parts of your BBS. Each billing profile contains information about conference and file area activity, doors, *wcCHAT*, *wcFAX* and *wcMAIL*. You can set peak and non-peak billing rates based on the day of the week. You can also specify holiday billing rates for any day of the year.

Each billing profile is in turn associated with one or more security profiles. That way, you can charge different rates for different security profiles, provide free but limited "demo" accounts, or reward selected groups of users for certain kinds of activities. You can *add* credits to a caller's credit account by entering negative values in any of the rate fields.

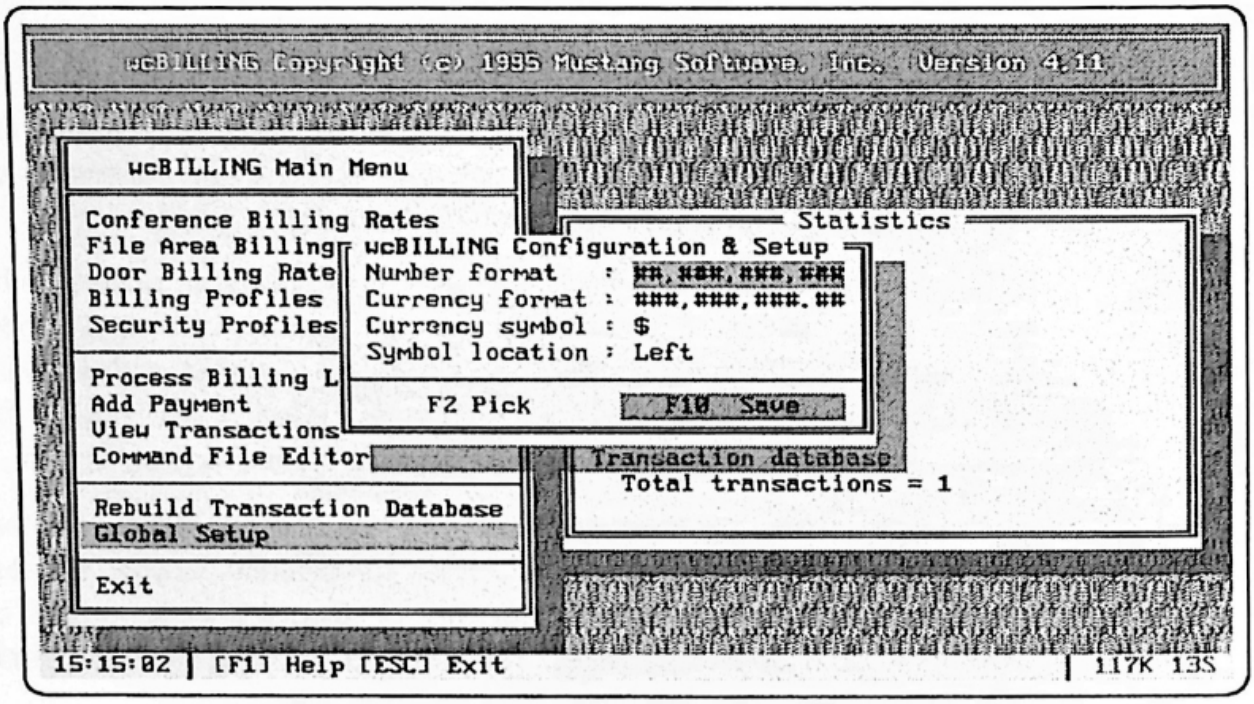
We recommend that you review this chapter and the next one before you begin creating billing profiles. This will help you plan a coherent billing structure for your BBS. At the end of this chapter, you can find some example billing profiles for a variety of typical BBS activities.

To get started, run *wcBILLING* in your WILDCAT home directory (normally C:\WILDCAT), and select **Global Setup** from the main menu.

Global Setup

The following options control the way *wcBILLING* creates its output files. The defaults supplied in these fields are appropriate for North American users. If you are using *wcBILLING* outside North America, your numeric and currency formats may be different from the examples shown.

To customize the way *wcBILLING* displays numeric and currency output, enter your changes in this window.



Number Format

Use this field to specify the format for displaying numbers in *wcBILLING* reports. You can use either a comma or a period as the "thousands" specifier. *wcBILLING* will automatically trim leading zeroes.

The # sign represents a number. Here is the default numeric format:

```
##,###,###,###
```

wcBILLING uses this numeric format to report the number of minutes, files and messages in a report, list or invoice. You can use template macros such as @TIME@, @UPK@, and @MSGSLEFT@ in invoice templates. You can find a complete list of template macros in the last chapter of this book.

Currency Format

Use this field to specify the format for displaying currency amounts in *wcBILLING* reports. When *wcBILLING* composes a report, it automatically

trims the output to the correct number of digits, with the currency symbol in the correct position.

The # sign represents a number. Note the number of decimal places, and adjust this field to match your own currency values. Here is the default currency format:

```
###,###,###.##
```

wcBILLING uses this currency format to report charges accrued or payments received in a report, list or invoice. You can use template macros such as @BGRNDTOTAL@ and @BCOST@ in invoice templates. You can find a complete list of template macros in the last chapter of this book.

Currency Symbol

Enter the symbol for your country's currency in this field. Notice that this field can contain up to 10 characters.

Symbol location

wcBILLING will place the currency symbol either before (left) or after (right) the number, according to the location you specify here.

Conference Billing Rates

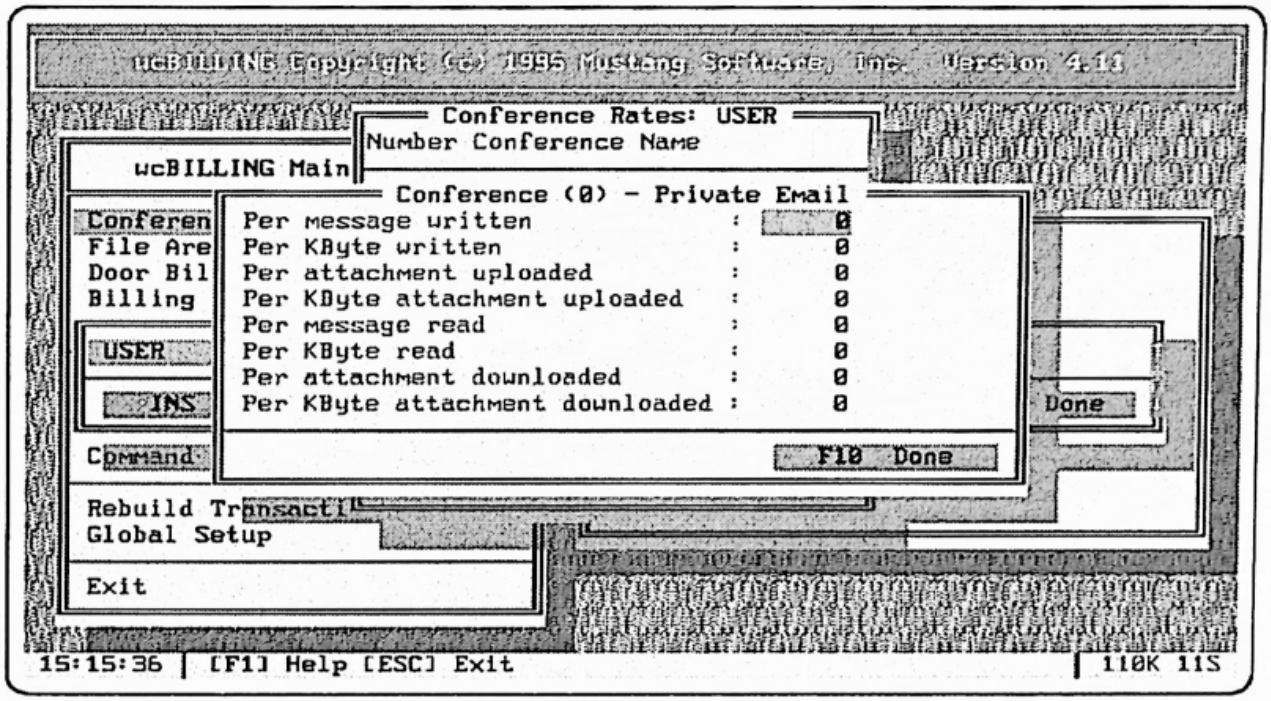
Conference billing rates allow you to define, conference by conference, what to charge for messages your callers send and receive. You can charge different amounts for each conference. A negative number in any of these fields will credit the caller's credit account.

To add a new conference billing rate,

- Press INS to pop up an edit window
- Select a conference with your mouse or arrow keys
- Double-click or press ENTER to edit the conference settings.
- Press F2 to save your changes and return to the previous window.

Tip

You can edit each conference separately, or you can apply billing information to a range of conferences. Use the F4 Global button at the bottom of the conference list.



Tip

Costs are defined in credits. The number of credits that make up a unit of currency is defined in the **Billing Profiles** section of *wcBILLING*. To charge 15 cents to read an e-mail message:

- enter 15 in the **per message read** field in the Conference Billing window,
- enter 100 in the **Credits per unit of currency** field in the Billing Profiles window.

Per message written

Enter the number of credits to charge for each message written by the caller in the selected conference. This amount will be charged to the caller's credit account whether the message is written on-line or uploaded through *wcMAIL*.

Callers will also be charged for

- carbon copies they send (including messages sent using the GROUPx.LST distribution list feature),
- messages they forward to another caller,
- messages written to the uploader of a file from the **File Info** menu command.

Per KByte written

Enter the number of credits to charge for each kilobyte of message text written. The caller's credit account will be charged for each kilobyte of message text written on-line or uploaded through *wcMAIL*.

Note that you can charge both for number of messages and number of kilobytes written. In this case, the caller will be charged twice for each message sent: once for sending the message, and again for each kilobyte written.

Callers will also be charged for

- carbon copies they send (including messages sent using the GROUPx.LST distribution list feature),
- messages they forward to another caller,
- messages written to the uploader of a file from the **File Info** menu command.

Tip

You can also use the Per Message and Per KByte written fields to reward callers for posting messages. Enter a negative value in one or both of these fields, and the caller's account will be credited, rather than charged, for sending messages. This is a great way to encourage callers to participate in local or national message conferences, and build up credits so they can then download files or play door games.

Per attachment uploaded

Enter the number of credits to charge for each message attachment uploaded. This amount will be charged whether the attachment is entered on-line or uploaded through *wcMAIL*.

Callers will also be charged for

- carbon copies they send (including messages sent using the GROUPx.LST distribution list feature),
- messages they forward to another caller,
- messages written to the uploader of a file from the **File Info** menu command.

Per KByte attachment uploaded

Enter the number of credits to charge for each kilobyte of message attachment uploaded. This amount will be charged whether the message is entered on-line or uploaded through *wcMAIL*.

Callers will also be charged for

- carbon copies they send (including messages sent using the GROUPx.LST distribution list feature),
- messages they forward to another caller,

- messages written to the uploader of a file from the **File Info** menu command.

Per message read

Enter the number of credits to charge for each message read by the caller in the selected conference. *wcBILLING* will not charge the caller until the message is actually received: either read on-line or downloaded from *wcMAIL*.

Per KByte read

Enter the number of credits to charge for each kilobyte of message text read. Note that you can charge both for number of messages and number of kilobytes received. As with messages sent, the caller will be charged twice for each message read: once for reading the message, and again for each kilobyte read.

Tip

This is a handy way to recover costs from callers who subscribe to Internet mailing lists, especially if you incur long distance charges or other fees when connecting to your Internet Service Provider.

Per attachment downloaded

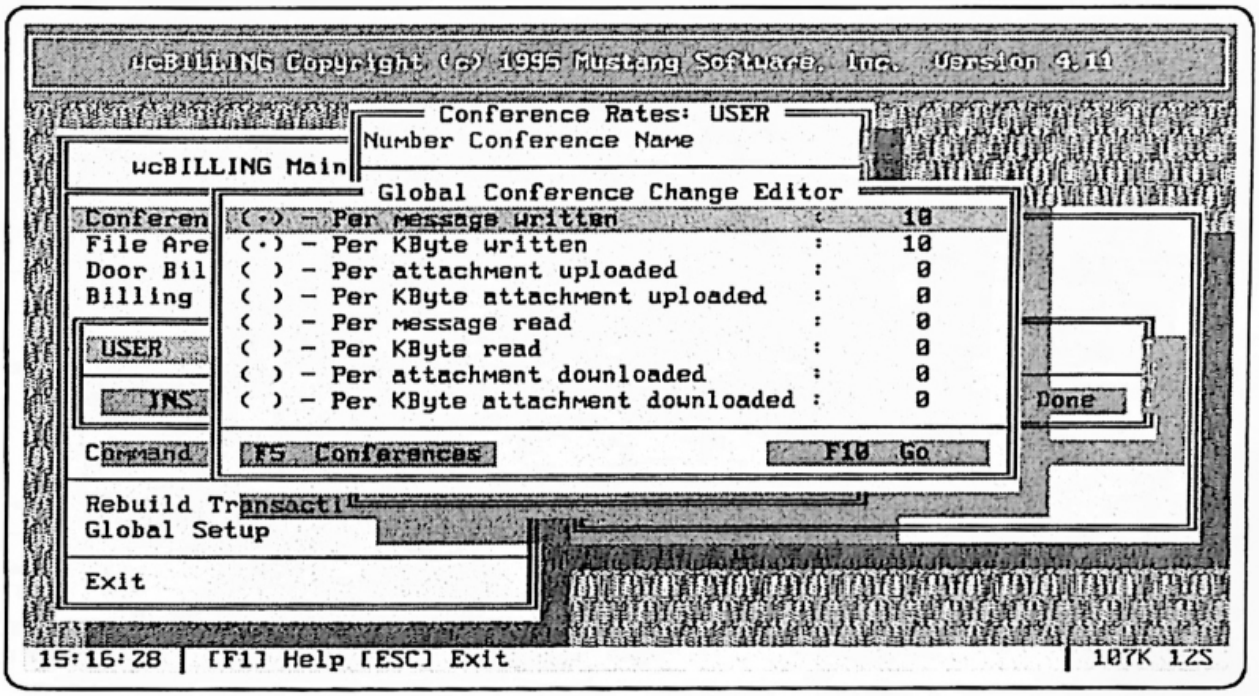
Enter the number of credits to charge for each message attachment downloaded. The caller's credit account will be charged when the attachment is downloaded, either on-line or through *wcMAIL*.

Per KByte attachment downloaded

Enter the number of credits to charge for each kilobyte of message attachment downloaded. The caller's credit account will be charged when the attachment is downloaded, either on-line or through *wcMAIL*.

Tip

Off-line file requests, including requests processed through *wcMAIL* and requests for off-line CD-ROM files are handled as file downloads rather than as message attachments. This avoids the situation where a caller is charged both for the message attachment and for the file download.



F4 Global

Global Modify displays a list of settings that may be changed for any or all conferences you have defined.

To select items to modify

- Move the highlight bar to the item you wish to select
- Press SPACE to toggle the selection dot on.

- Press ENTER to edit the value of each item you wish to apply to the items you have selected.
- Press F9 to apply the changes.

F5 Conferences

When you have made your selections, press F8 to select the items to which these changes should apply.

To select items to modify

- Move the highlight bar to the item you wish to select
- Press SPACE to toggle the selection dot on.

To select a range of items

- Press F7 to mark the beginning of the range
- Press F8 to mark the end of the range.
- Use the ALT S Set All and ALT C Clear All buttons to toggle all file areas on or off.

Press F9 to process your changes.

File Area Billing Rates

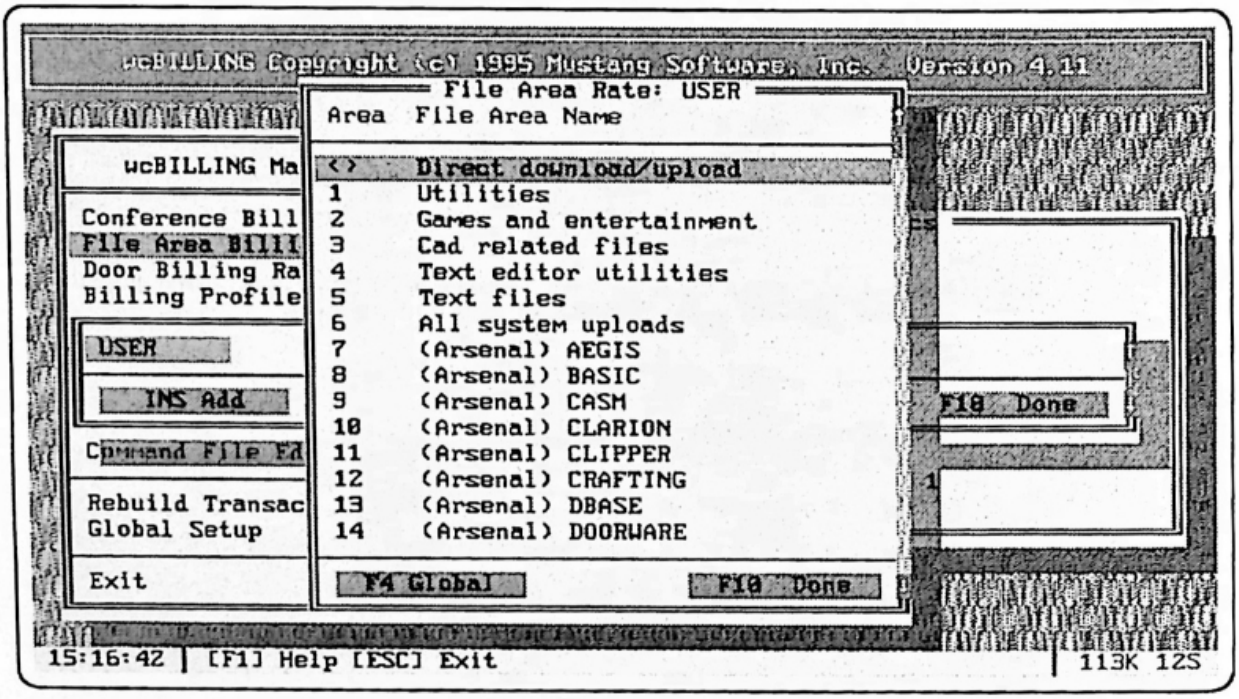
File area billing rates allow you to assign charges for uploading and downloading in each file area on your BBS. These charges are in addition to any value set in the File Cost charge in the file database record. A negative number in any of these fields will credit the caller's credit account.

To add a new file area billing rate,

- Press INS to pop up an edit window
- Select a file area with your mouse or arrow keys
- Double-click or press ENTER to edit the file area settings.
- Press F2 to save your changes and return to the previous window.

Tip

You can edit each file area separately, or you can use the F4 Global button at the bottom of the file area list to apply billing information to a range of file areas.



Tip

Costs are defined in credits. The number of credits that make up a unit of currency is defined in the **Billing Profiles** section of *wcBILLING*. To charge 15 cents to download a file,

- enter **15** in the **per file downloaded** field in the **File Area Billing** window,
- enter **100** in the **Credits per unit of currency** field in the **Billing Profiles** window.

File download rate

Enter the number of credits to charge for each file downloaded. This amount will be charged to the callers credit account. The caller's credit account is charged when the file download is complete.

The only exception is for files that have the **Don't Charge** flag set for their individual database entries. This setting will override any cost you have entered in *wcBILLING* for a file area, and the file will be downloaded to the caller for free.

Download rate per KByte

Enter the number of credits to charge for each kilobyte downloaded. As with the per-file rate in the previous paragraph, the charge is added onto any cost in the file's database record.

As with the file download rate discussed in the previous section, the **Don't Charge** flag for an individual file overrides the file area charge for download KBytes.

Download rate per MByte

Enter the number of credits to charge for each megabyte or portion downloaded. As with the per-file rate, the charge is added onto any cost in the file's database record.

As with the file download rate discussed in the previous section, the **Don't Charge** flag for an individual file overrides the file area charge for download KBytes.

Tip

Use caution when assessing MByte charges. Callers will be charged for a full megabyte when they download files of *any size between* 512 KBytes and 1 MByte —and will be assessed *in addition to* any KByte charge you specify. If you charge, for instance, 1 credit per kilobyte and 10 credits per megabyte, callers will be charged 523 credits to download a 513 KByte file!

File upload rate

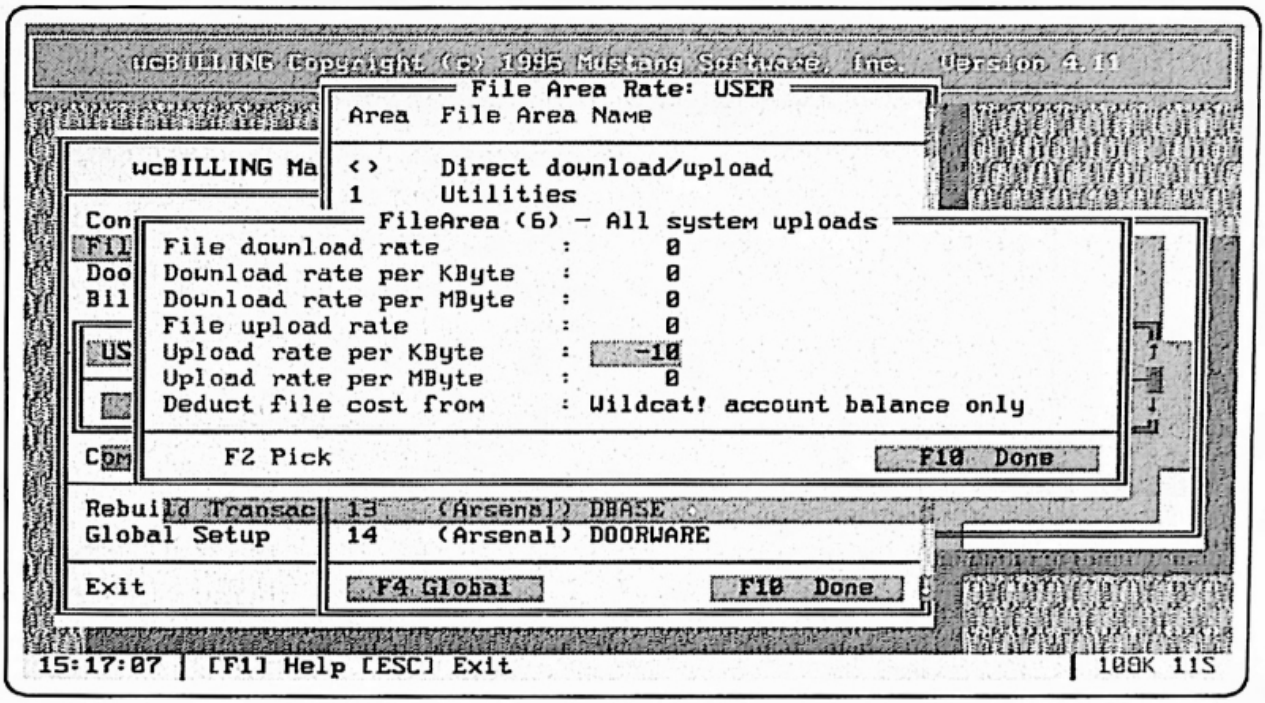
Enter the number of credits to charge for each file uploaded. This amount will be charged *in addition to* any cost in the file database record for any individual file. The caller's credit account is charged when the file upload is complete.

Tip

You can credit a caller's credit account for uploads by entering a negative value in this field.

Upload rate per KByte

Enter the number of credits to charge for each kilobyte uploaded. As with the previous option, you can enter a negative balance in this field to credit callers for each KByte uploaded.



Upload rate per MByte

Enter the number of credits to charge for each megabyte or portion uploaded. As with the previous option, you can enter a negative balance in this field to credit callers for each MByte uploaded.

Tip

Use caution when assessing MByte charges. Callers will be charged for a full megabyte when they upload files of *any size between* 512 KBytes and 1 MByte —and will be assessed *in addition to* any KByte charge you specify. If you charge, for instance, 1 credit per kilobyte and 10 credits per megabyte, callers will be charged 523 credits to upload a 513 KByte file!

Deduct file cost from

Each file in *Wildcat!*'s file database has a field for **File cost.** *wcBILLING* offers three ways to deal with this file cost over and above the per-file, per KByte and per MByte download rates specified for file areas.

This amount will be charged *in addition to* any cost in the file database record for any individual file. This allows you the flexibility to set a specific cost for certain files on your system and have the cost charged to your choice of account balance fields in your callers' user records.

Wildcat! account balance only

This option deducts the File Cost in the file database record from the caller's **Subscription balance** field. This field is not used by *wcBILLING*.

Wildcat! & billing credits balance

This option deducts the File Cost in the file database record from both account fields: **Subscription balance** and **Credit account.**

Billing credits balance only

This option deducts the File Cost in the file database record from the caller's **Credit account** field and ignores the **Subscription balance**.

F4 Global

Global Modify displays a list of settings that may be changed for any or all file areas you have defined.

To select items to modify

- Move the highlight bar to the item you wish to select
- Press SPACE to toggle the selection dot on.
- Press ENTER to edit the value of each item you wish to apply to all the items you have selected.
- Press F10 to apply the changes.

F5 File areas

When you have made your selections, press F3 to select the file areas to which these changes should apply.

When you have made your selections, press F8 to select the items to which these changes should apply.

To select items to modify

- Move the highlight bar to the item you wish to select
- Press SPACE to toggle the selection dot on.

To select a range of items

- Press F7 to mark the beginning of the range
- Press F8 to mark the end of the range.
- Use the ALT S Set All and ALT C Clear All buttons to toggle all file areas on or off.

Press F10 to process your changes.

Door Billing Rates

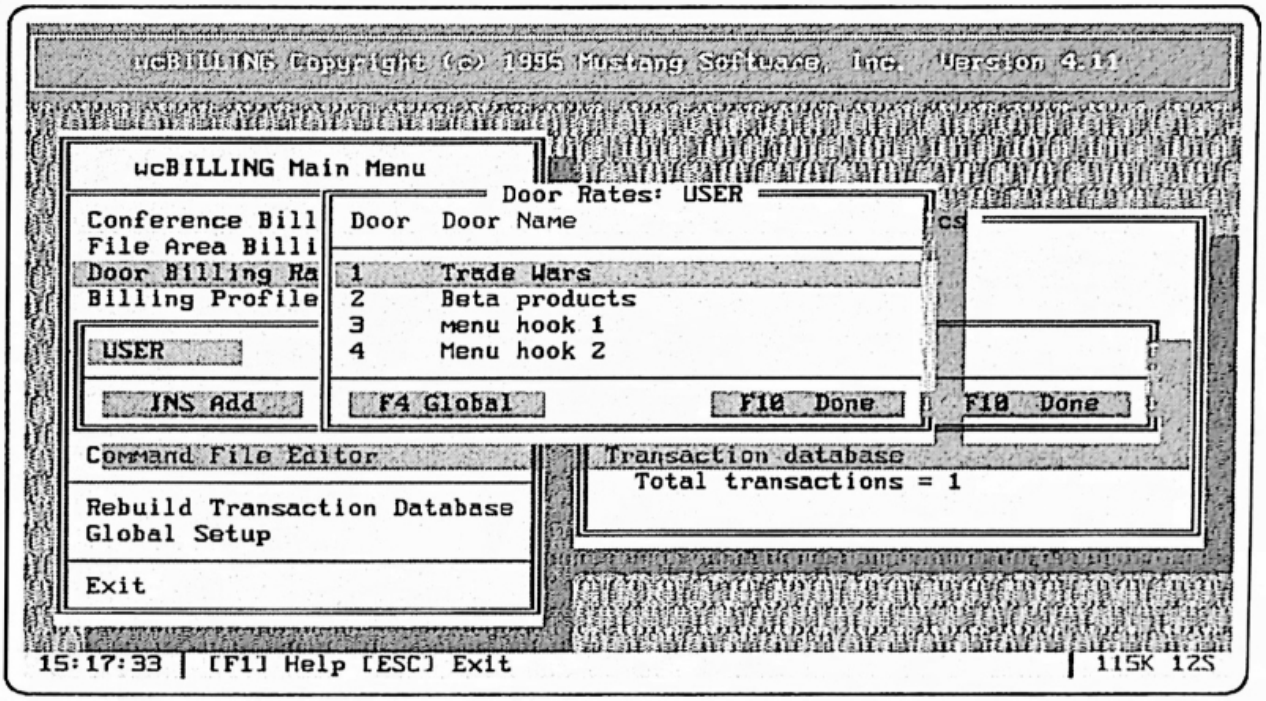
You can charge callers for door or menu hook usage in two ways: a cost per minute to use the door, and a flat rate charge for entering a door or menu hook.

To add a new door billing rate,

- Press INS to pop up an edit window
- Select a door with your mouse or arrow keys
- Double-click or press ENTER to edit the door settings.
- Press F2 to save your changes and return to the previous window.

Tip

You can edit each door separately, or you can use the F4 Global button at the bottom of the door list to apply billing information to a range of doors.



Tip

Costs are defined in credits. The number of credits that make up a unit of currency is defined in the **Billing Profiles** section of *wcBILLING*. To charge 15 cents to enter a door,

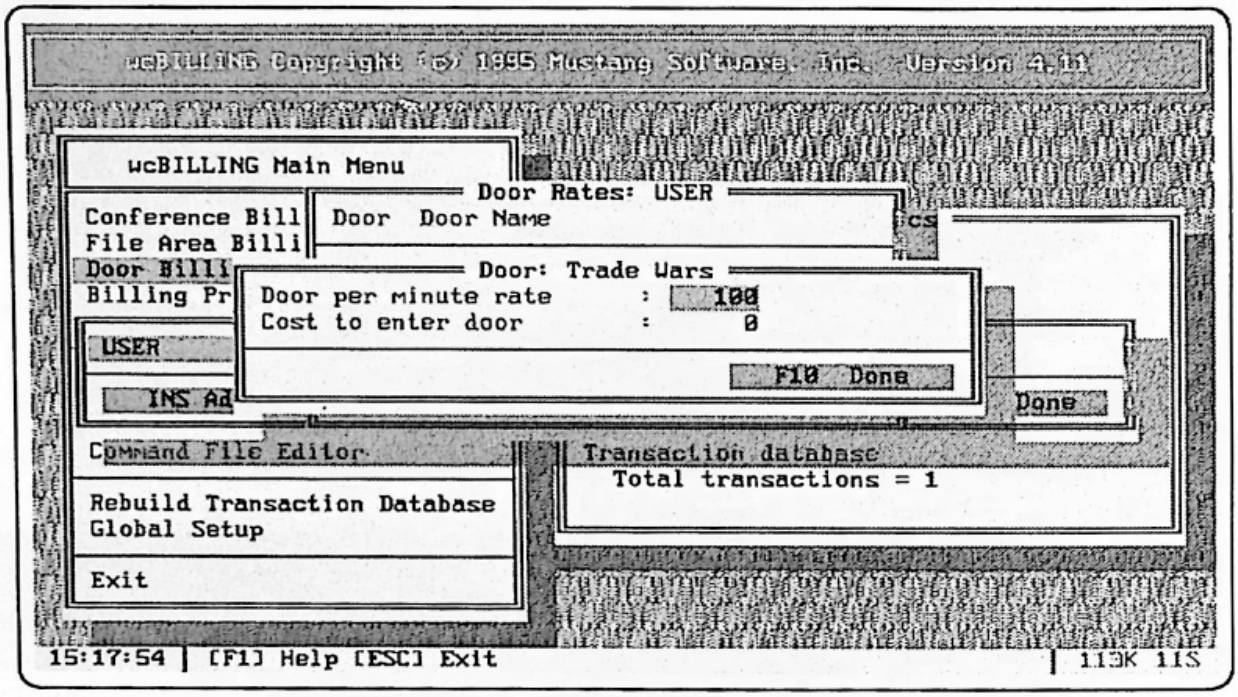
- enter **15** in the **Cost to enter door** field in the **Door Billing** window,
- enter **100** in the **Credits per unit of currency** field in the **Billing Profiles** window.

Door per minute rate

Enter the number of credits per minute to charge for this door. Callers will be charged for each minute they spend in the door, with the cost deducted when they return to *Wildcat!* or log off. When a caller enters a door, the regular per minute rate in *Wildcat!* is suspended. Callers are charged **only** the door per minute rate when in a door.

Cost to enter door

Enter the number of credits to charge whenever a caller enters this door. Callers will be charged a flat fee when they enter the door.



Tip

Enter a negative number in the **cost to enter** or **per-minute** fields to reward callers for using a door.

F4 Global

Global Modify displays a list of settings that may be changed for any or all doors you have defined.

To select items to modify

- Move the highlight bar to the item you wish to select

- Press SPACE to toggle the selection dot on.
- Press ENTER to edit the value of each item you wish to apply to the items you have selected.
- Press F10 to apply the changes.

F6 Doors

When you have made your selections, press F6 to select the items to which these changes should apply.

To select items to modify

- Move the highlight bar to the item you wish to select
- Press SPACE to toggle the selection dot on.

To select a range of items

- Press F7 to mark the beginning of the range
- Press F8 to mark the end of the range.
- Use the ALT S Set All and ALT C Clear All buttons to toggle all file areas on or off.

Press F10 to process your changes.

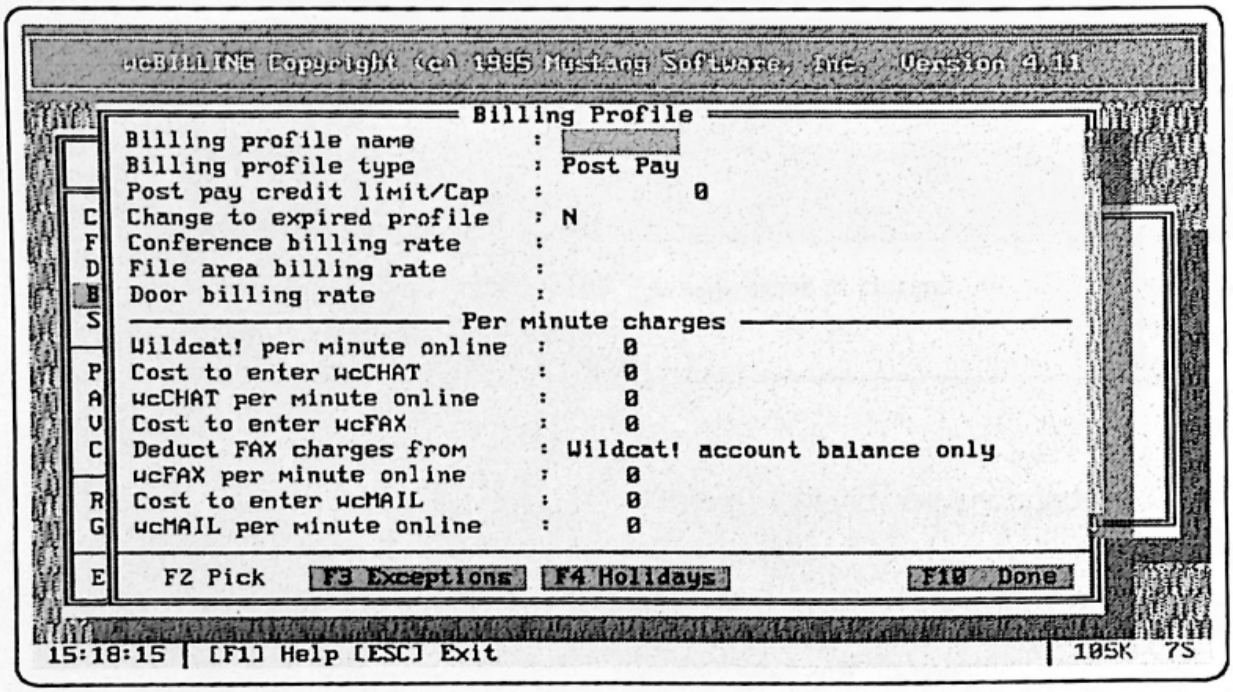
Billing Profiles

A billing profile is a list of BBS activities and the charges associated with each one. Billing activities include file, conference and door access, which are defined in the previous sections, plus per-minute charges for various other activities. Billing profiles are in turn linked to security profiles. *Wildcat!* will only charge for on-line activity if a caller's security profile is linked with a billing profile.

To add a new billing profile,

- Press INS to pop up an edit window
- Fill in the data fields
- Press F9 to save your changes and return to the previous window.

Note that this window scrolls up and down to show you more configuration items. Use your mouse on the scrollbar on the right side of the window, or your PGUP and PGDN keys to move around in this window.



Billing profile name

The billing profile name can be up to eight characters long, and must consist of valid DOS filename characters only — no punctuation characters or spaces.

You can define billing profiles for your standard billing rates, and for exception and holiday rates. You can define a maximum of 1000 billing profiles.

Billing profile type

wcBILLING offers two types of payment options: Pre Pay and Post Pay.

Pre Pay

The Pre Pay option requires callers to maintain a positive balance in their credit account, which you credit when they pay in advance for BBS access. When a caller's credit account reaches 0, further BBS activities with charges associated are suspended. If a per-minute charge is in effect when the caller runs out of credits, *Wildcat!* warns the caller that he is out of credits, and logs the caller off. If the billing profile is set to change the caller's security profile, the caller will be expired to the "expired profile" defined in *MAKEWILD*.

Post Pay

The Post Pay option allows callers to maintain a negative balance, and allows you to invoice callers for actual usage during the billing period. You can use the **Import transactions** feature, discussed later in this chapter, to update user credit accounts automatically to reflect payments received.

Post pay credit limit/cap

This option is available only if you select **Post Pay** (above) as the billing profile type. The value you enter here is the *maximum* number of credits this caller can use before BBS access is cut off. To set up an account with unlimited credit, enter a 0 (zero) in this field.

Change to expired profile

Answer **Yes** if you would like the caller's security profile to be changed automatically by *Wildcat!* to the "expired profile" defined in *MAKEWILD* when the caller's credit account reaches 0 credits or the post pay credit limit.

Conference/File area/Door billing rates

These are the conference, file area and door billing rates assigned to this billing profile. Conference billing rates allow you to charge an additional flat fee for messages written, KBytes written, and messages received in any of your *Wildcat!* conferences. Likewise, file area billing rates allow you to charge for uploads and downloads in any of your file areas. The door billing rates allow you to charge a caller for access to a door, and for time spent in a door.

To select a billing rate for each of these selections, select the field to change and press F2 to pop up a selection list. Select the billing rate you want to link to this billing profile, and press F2 to save your selection.

If you don't want to assess specific charges for conference, file or door access, you can leave these fields blank.

Wildcat! per minute on-line

This is the number of credits to charge a caller's credit account for each minute on line. This per-minute charge is *in addition to* any separate charges you assess for message, file and door activities.

Cost to enter wcCHAT/wcFAX/wcMAIL

Enter the number of credits to charge whenever a caller enters any one of these *Wildcat!* door programs. Callers will be charged a flat fee when they enter the door.

Note that these special *Wildcat!* doors contain their own billing code. These programs update the caller's credit account and transaction log automatically. Compare this with doors that do not contain internal code

to update the credit account and transaction logs — for non-*Wildcat!* doors, *Wildcat!* itself must calculate the time spent in a door when the caller returns to *Wildcat!* or logs off.

wcCHAT/wcFAX/wcMAIL per minute on-line

Enter the per minute charge in credits to bill callers when they enter *wcCHAT, wcFAX* or *wcMAIL*. When callers are in one of these programs, *Wildcat!*'s time charge is suspended. To continue charging callers for time spent in these external programs, enter a number here.

Deduct FAX cost from

Each FAX document in *wcFAX* has a field for **Cost.** *wcBILLING* offers three ways to deal with this FAX cost. This allows you the flexibility to set a specific cost for FAX documents on your system and have the cost charged to your choice of account balance fields in your callers' user records.

Wildcat! account balance only

This option deducts the FAX Cost from the caller's **subscription balance** field. This field is not used by *wcBILLING*.

Wildcat! & billing credits balance

This option deducts the FAX Cost from both the caller's **subscription balance** field, maintained by *Wildcat!*, and the **credit account** field, maintained by *Wildcat!* and used by *wcBILLING*.

Billing credits balance only

This option deducts the FAX Cost from the caller's **credit account** field and ignores the **subscription balance**.

BILL1.BBS/BILL2.BBS at what balance

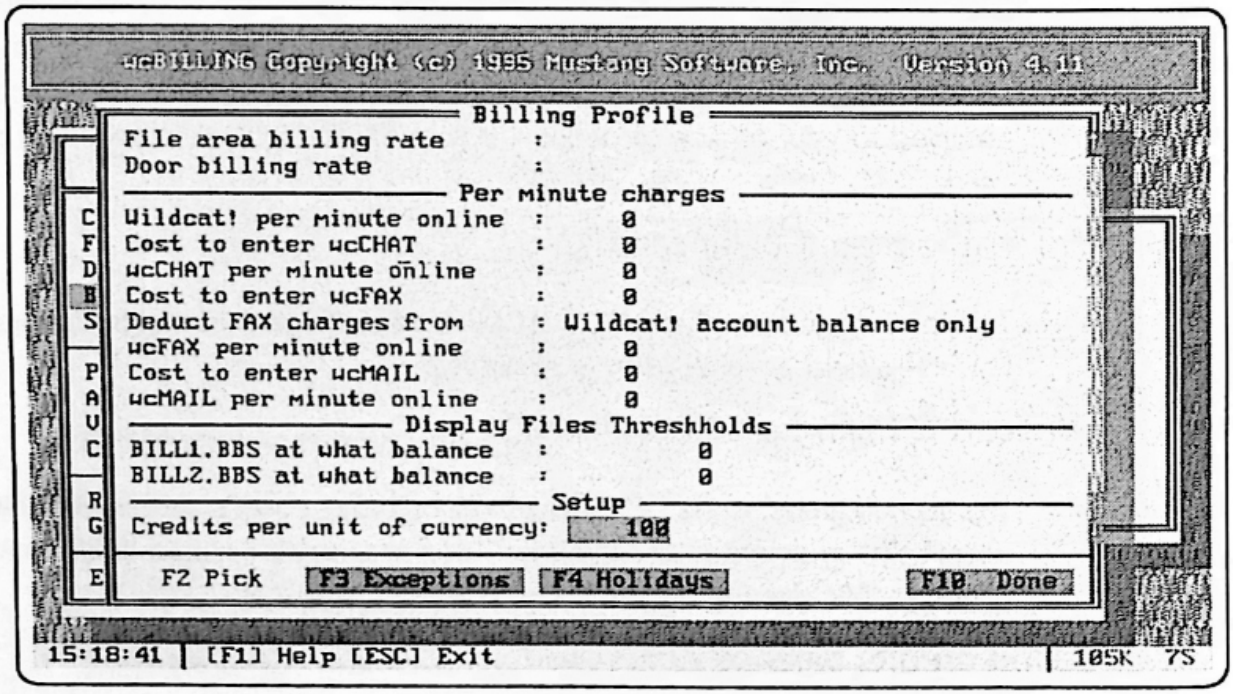
wcBILLING will automatically display a special "hello" file to the caller when his credit account reaches the thresholds you specify here. These

files are displayed during logon right after the WARN##.BBS display files shown by *Wildcat!* to callers who are near their expiration dates.

These files should be located in the conference display file path, and can be created using *wcDRAW*.

Credits per unit of currency

The unit of currency is the amount in cash that each credit represents. For instance, if you want each credit to equal $1.00, enter 1 in this window. If you want each credit to equal 25 cents, enter 4 in this window. If you want a credit to equal one cent, enter 100.



F3 Exceptions

You can specify different billing rates for "prime time" and "off-peak" hours for each day of the week. For instance, you may want to charge prime time rates for weekdays from 9 am to 5 pm, and off peak rates for evenings and weekends.

To do this, you create a billing profile for your regular rate, and another for your exception periods. You can have as many profiles as you want, but you can only assign one exception period per weekday.

To link an exception period to your billing profile, press ▣ to pop up the Exceptions list, and select a day of the week to edit.

Start time

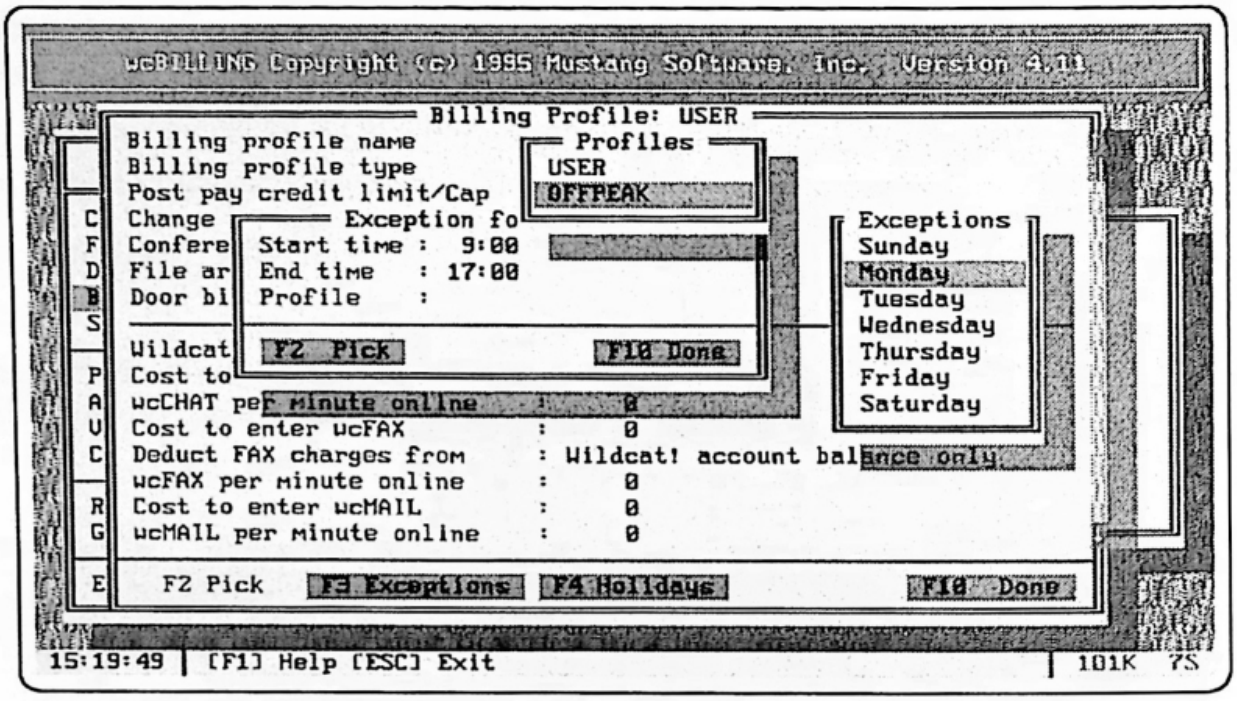
Enter the time to begin using the exception billing profile. Enter these times in 24-hour format, for instance 09:00 for 9 a.m., or 23:30 for 11:30 p.m.

End time

Enter the time to stop using the exception billing profile. Enter these times in 24-hour format, for instance 17:00 for 5 p.m., or 08:00 for 8 a.m.

Profile

Select the billing profile you would like to use for this exception period. The rates in the exception profile will be used *instead of* the regular rate for caller activity.



Tip

There are three simple rules to remember when assigning billing profiles to exception periods.

- *wcBILLING* will not allow you to enter an end time that is earlier than the start time.
- An exception must fall entirely within one 24 hour period.
- You cannot "nest" exceptions. Only exception profiles linked to the "primary" billing profile will be honored by *wcBILLING*.

F4 Holidays

You can specify certain calendar dates that should have a different billing profile. Entries in this section *override* both the regular and exception billing rates. So, if a holiday falls on a day of the week for which an exception is defined, only the holiday billing profile will be used for that particular day, for the entire 24 hour period.

To do this, you create a billing profile for your regular rate, and another for your holiday periods.

To add a holiday, press INS to pop up an entry window.

Date mask

Enter the date as mm/dd/yy. * is the Wildcard character. You can fill in the day, month or year field, or a combination, to specify that holiday schedules are in effect for any date that matches the date mask. For instance the date entry:

```
**/01/**
```

will bill the first day of each month at the specified holiday billing profile instead of the standard billing profile.

For holidays that fall on fixed calendar days, such as Christmas, you can use wildcards in the year field like this:

```
12/25/**
```

If you want the entire month of June to be charged at the holiday rate, fill in the date like this:

```
06/**/**
```

Profile

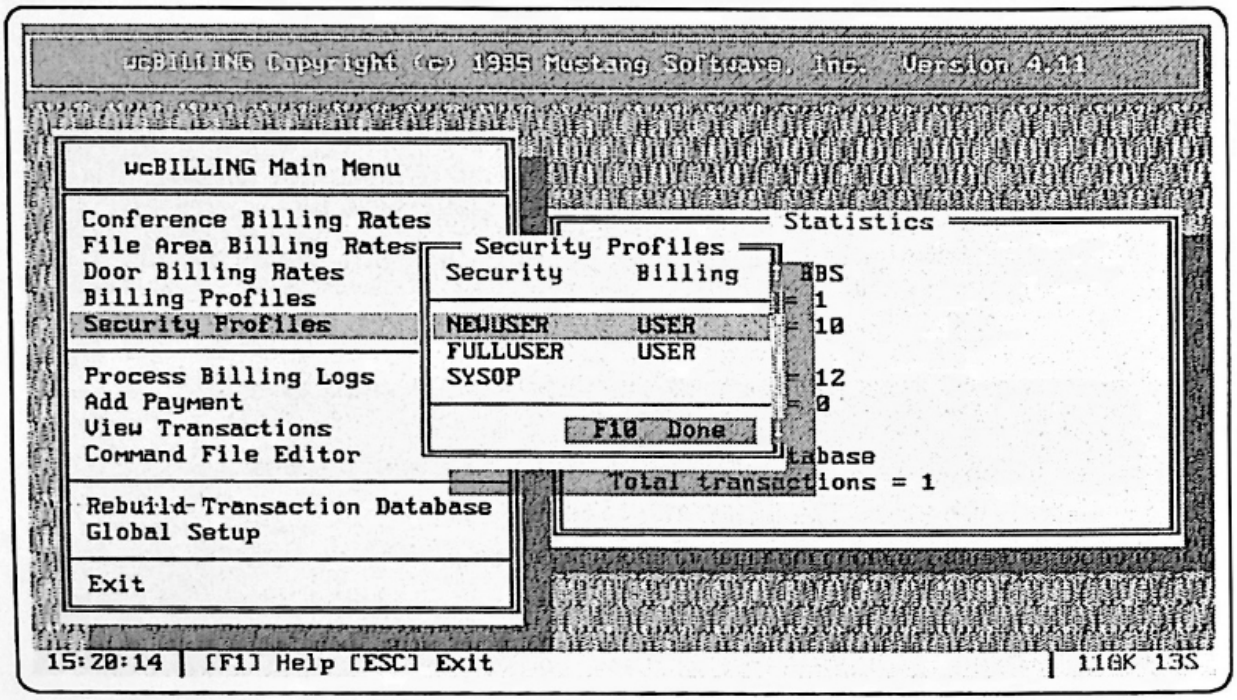
Select the billing profile you would like to use for this holiday period. The rates in the holiday profile will be used *instead of* the regular billing profile for caller activity.

Tip

You cannot "nest" holidays. Only holiday profiles linked to the "primary" billing profile will be honored by *wcBILLING*.

Security Profiles

The final step in setting up a billing system for your BBS is to associate a billing profile with each security profile. Any security profile that has a billing profile associated with it will have time and usage charges assessed. Each security profile can have its own unique billing profile, or you can assign the same billing profile to more than one security profile.



This screen shows a list of the security profiles you defined in *MAKEWILD*. Note that billing profiles are attached to primary security profiles only — you cannot attach a billing profile to a secondary security profile. To attach a billing profile to a security profile, use your mouse or arrow keys to select a security profile, then press ENTER or double-click to pop up a selection list.

Billing profile name

Press F2 to pop up a selection list of billing profiles to associate with this security profile, then press F10 to save your changes and return to the previous menu.

Examples

The following examples show you how to fill in the fields for Conference, File Area, Door and Billing rate screens to create a variety of typical applications. The values shown are examples only —you are free to charge whatever you feel is appropriate for these services on your BBS.

Before you put any of these examples or your own modifications on line,

- Log on as a test user with the appropriate security and billing profile
- Test each operation to confirm that the billing system is working the way you expect it to.

When you are happy with the results, you can then open it up to your callers.

You can of course combine these examples in any way you want: for instance, a flat per-minute charge, with additional charges for Internet E-mail, with rewards for file uploads. But be cautious about charging for every possible option, since charges added on top of other charges can quickly overburden your callers. For best results, keep it simple.

All of the examples on the following pages show a Pre-Pay billing mode. In this mode, callers pay in advance for a specific number of credits. You add credits to their credit accounts manually by editing the caller's user record from *wcBILLING* or *Wildcat!*, or by importing a list of transactions in *wcBILLING*. When a caller runs out of credits, one of two things will happen, depending on your settings:

1. If **Change to expired profile** is set to YES in the billing profile, the caller's security will be changed to the **expired profile** specified in *MAKEWILD* Security Profile definitions, or
2. If **Change to expired profile** is set to NO, the caller's security will not be changed, but further activities on the BBS are suspended until you replenish the caller's credit account.

You can easily change any of these examples to a Post-Pay billing mode. In this mode, callers start each billing period with a balance of 0 credits in their credit account. Callers are billed according to the actual number of credits they use during a billing period, up to a maximum credit limit you specify for each billing profile.

At the end of each billing period, you can generate invoices with *wcBILLING* to bill your callers for the actual amount of services used, and credit their accounts when they make a payment.

A flat per-minute charge for BBS access

In the following example, we will be charging 25 credits per minute, with each credit costing 1 cent, without regard to file transfers or messaging activity. For this example, leave the **Conference** and **File Area** billing rates blank since the cost for these activities will be covered by the per-minute charge.

In this example, we are assuming that callers will be purchasing on-line credits in advance, and that their access to the BBS will stop when their credit account reaches zero.

Door Billing Rates

Fill in the door billing rate for *each* door and menu hook configured on your system. Save the door billing rate as **FLATRATE**.

Field	Value	Notes
Door per minute rate	25	Remember, *Wildcat!* suspends the regular per minute rate when a caller enters a door.
Cost to enter door	0	Set this field to zero unless you want to charge an additional fee to enter the door.

Billing profile

Now create a billing profile named **FLATRATE** with the following information:

Field	Value	Notes
Billing profile name	FLATRATE	Keep these profile names consistent so they are easy to remember.
Billing profile type	Pre Pay	Payment in advance for credits
Post pay credit limit/Cap	N/A	Only available for Post Pay billing type

Field	Value	Notes
Change to expired profile	<optional>	Changes caller's security to "expired" profile from *MAKEWILD* when credit account is depleted.
Conference billing rate	<blank>	No separate charge for messaging
File area billing rate	<blank>	No separate charge for files
Door billing rate	FLATRATE	From saved door billing rate
Wildcat! per minute on-line	25	25 credits per minute, translated to $.25 below
Cost to enter *wcCHAT*	0	No additional fee to enter *wcCHAT*
wcCHAT per minute on-line	25	Same as regular per minute rate
Cost to enter *wcFAX*	0	No additional fee to enter *wcFAX*
Deduct FAX cost from	<optional>	Choose credit account, subscription balance, or both.
wcFAX per minute on-line	25	Same as regular per minute rate
Cost to enter *wcMAIL*	0	No additional fee to enter *wcMAIL*
wcMAIL per minute on-line	25	Same as regular per minute rate
BILL1.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
BILL2.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
Credits per unit of currency	100	Each credit is worth 1 cent.

Save your billing profile, then go to **Security Profiles** and attach this billing profile to all security profiles to which it should apply.

Tip

Notice that you can specify the same profile name for doors, conferences, and files. Put a little thought into the naming and organization of your profiles to help keep your system organized and easy to use.

A peak period schedule

For peak and off-peak billing, where rates change depending on the time of day, create two billing profiles: one for peak rates, the other for off-peak rates. Name them PEAK and OFFPEAK.

Remember that you can use the same billing, door or conference billing rates with both PEAK and OFFPEAK, or you can choose to have separate ones.

Let's assume that your peak billing rates are between 9 am and 5 pm weekdays, with off-peak billing the rest of the time and on weekends. You would thus use OFFPEAK as your "primary" billing profile, and "PEAK" as the exception profile.

This may seem backwards, but remember that an exception period must take place *entirely* within a single 24 hour day. Since your off-peak billing begins at 5 pm and remains in effect until 9 am the next day, it "wraps" past midnight and cannot be scheduled as an exception.

If on the other hand you may run a BBS for insomniacs who call mostly during your peak period of 11 pm and 6 am. In this case, assign PEAK as your primary billing rate, since it wraps past midnight. Assign OFFPEAK as the exception rate, since it falls within a single 24 hour period —6 am to 11 pm.

Don't forget to assign exceptions for each day of the week for which they should apply.

Charging for Internet E-mail access

For this example, we will charge callers a minimum of 25 credits for each internet message sent or received, with a 15 cent per KByte surcharge for long messages and attached files. We will do this in two stages: 10 credits for the message itself, and 15 credits for each KByte it contains. Since a screenful of text is usually between one and two KBytes, the minimum charge for a one-page message will be 25 credits.

Conference Billing Rates

Create a conference billing rate called **INTERNET.** From the conference list, select your "Internet E-mail" conference, and fill in the following charges:

Field	Value	Notes
Per message written	10	Basic message charge
Per KByte written	15	Plus 15 credits for each KByte equals 25 credits minimum for an E-mail message
Per attachment uploaded	0	Charge for attachment by size (below)
Per KByte attachment uploaded	15	Plus 15 credits for each KByte of file attachment
Per message read	10	Basic message charge
Per KByte read	15	Plus 15 credits for each KByte equals 25 credits minimum for an E-mail message
Per attachment downloaded		Charge for attachment by size (below)
Per KByte attachment downloaded	15	Plus 15 credits for each KByte of file attachment

Billing profile

Call this billing profile **INTERNET.** Since there is no per-minute charge or file charge, those items will be left blank.

Field	Value	Notes
Billing profile name	INTERNET	Keep these profile names consistent so they are easy to remember.
Billing profile type	Pre Pay	Payment in advance for credits
Post pay credit limit/Cap	N/A	Only available for Post Pay billing type
Change to expired profile	<optional>	Changes caller's security to "expired" profile when credit account is depleted.
Conference billing rate	INTERNET	Per-message charges set in conference billing rates
File area billing rate	<blank>	No separate charge for files
Door billing rate	<blank>	No separate charge for doors
Wildcat! per minute on-line	0	No per minute charge
Cost to enter *wcCHAT*	0	No additional fee to enter *wcCHAT*
wcCHAT per minute on-line	0	No per minute charge
Cost to enter *wcFAX*	0	No additional fee to enter *wcFAX*
Deduct FAX cost from	<optional>	Choose credit account, subscription balance, or both.
wcFAX per minute on-line	0	No per minute charge
Cost to enter *wcMAIL*	0	No additional fee to enter *wcMAIL*
wcMAIL per minute on-line	0	No per minute charge
BILL1.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
BILL2.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
Unit of currency in credits	100	Each credit is worth 1 cent.

Save your billing profile, then go to **Security Profiles** and attach this billing profile to all security profiles to which it should apply.

Rewarding callers with door credit for uploading files and posting messages

In this example, we are going to reward callers who upload files and post messages with credits they can then use to play door games. Callers will get 10 credits added to their credit account for each message posted, plus 15 additional credits for each KByte of message text. Each file upload will result in 100 credits, plus 100 additional credits for each KByte uploaded. Callers will be charged 25 credits each time they enter a door game.

This option will require some monitoring on your part, to discourage callers from uploading "junk" files just to gain credits.

Conference Billing Rates

Create a conference billing rate called **REWARD** Select all your conferences, and fill in the following charges, making special note of the minus sign:

Field	Value	Notes
Per message written	–10	Caller gets 10 credits for each message written (note minus sign)
Per KByte written	–15	Plus 15 credits for each KByte of message text posted.
Per attachment uploaded	0	We're looking for messages posted, not attachments.
Per KByte attachment uploaded	0	We're looking for messages posted, not attachments.
Per message read	0	No charge to read messages.
Per KByte read	0	No charge to read messages.
Per attachment downloaded	0	No charge to download attachments.
Per KByte attachment downloaded	0	No charge to download attachments.

File Area Billing Rates

Create a file area billing rate called **REWARD** and select only file areas to which callers have access to upload files. Fill in the following values, making particular note of the minus sign.

Field	Value	Notes
File download rate	0	No charge for downloads
Download rate per KByte	0	No charge for KBytes downloaded
Download rate per MByte	0	No charge for MBytes downloaded
File upload rate	–100	Caller gets 100 credits for each file uploaded (note minus sign)
Upload rate per KByte	–100	Plus 100 credits for each KByte uploaded.
Upload rate per MByte	0	No additional credit for MBytes.
Deduct file cost from	Billing credit	Change value in credit account field.

Door Billing Rates

Create a door billing rate called **REWARD** and select the door games for which you want to charge callers. The cost to enter a door is 25 credits, which is suitable for games such as chess or checkers, where a caller enters, plays a single turn, then leaves. For multi-player games where callers may spend a considerable amount of time, consider instead a per minute charge.

Field	Value	Notes
Door per minute rate	0	No per-minute cost
Cost to enter door	25	Costs 25 credits to enter this door.

Billing profile

Create a billing profile called **REWARD**, and attach your conference, file and door billing rates. Note that there is no per minute charge — all the charges and credits come from conference, file and door activities.

Field	Value	Notes
Billing profile name	REWARD	Keep these profile names consistent so they are easy to remember.
Billing profile type	Pre Pay	Payment in advance for credits
Post pay credit limit/Cap	N/A	Only available for Post Pay billing type
Change to expired profile	<optional>	Changes caller's security to "expired" profile from *MAKEWILD* when credit account is depleted.
Conference billing rate	REWARD	Rewards message posting
File area billing rate	REWARD	Rewards file uploads
Door billing rate	REWARD	Charges for door activity
Wildcat! per minute on-line	0	No per minute charge
Cost to enter *wcCHAT*	0	No additional fee to enter *wcCHAT*
wcCHAT per minute on-line	0	No per minute charge
Cost to enter *wcFAX*	0	No additional fee to enter *wcFAX*
Deduct FAX cost from	<optional>	Choose credit account, subscription balance, or both.
wcFAX per minute on-line	0	No per minute charge
Cost to enter *wcMAIL*	0	No additional fee to enter *wcMAIL*
wcMAIL per minute on-line	0	No per minute charge
BILL1.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
BILL2.BBS at what balance	<optional>	Warns callers during logon when credit account reaches this level
Unit of currency in credits	100	Each credit is worth 1 cent.

Save your billing profile, then go to **Security Profiles** and attach this billing profile to all security profiles to which it should apply.

3 - Processing

Nothing knits man to man, the Manchester School wisely taught,
like the frequent passage from hand to hand of cash.

Walter Sickert

In this chapter

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As callers log on to *Wildcat!* and spend time on line reading messages, transferring files and using the doors, *Wildcat!* will automatically adjust their credit account according to the billing profile you have set up for each caller's security profile.

When a caller runs out of credits, *Wildcat!* will not allow any further chargeable activity. This part of the process is automatic, and requires no intervention or processing on your part. *wcBILLING* can help you automate the other parts of the billing process:

- Viewing and updating transaction records,
- Updating caller credit accounts when they send in their payments,
- Generating invoices, output files and reports, and
- Creating command files.

Every time a caller performs some chargeable activity, *Wildcat!* records the results in a special log in the BILLING directory, below your WILDCAT home directory (normally C:\WILDCAT). The file name is BILLING, with a one to three number extension corresponding with the node ID number where the transactions took place. This file is plain ASCII text, and you can view it using a text browser such as LIST.COM. To generate invoices and other reports, you must periodically import this log file into *wcBILLING's* Transaction Database. The Transaction Database also needs to be rebuilt periodically, to remove space taken up by deleted records.

wcBILLING offers a variety of reporting formats, depending on your needs. You can export transaction records into standard DBF, Mail Merge (comma delimited) and Fixed Length output files, and import them into other programs for further processing. Or you can print your own invoices directly, using macros to create an output template. *wcBILLING* will extract the data from the transaction database and place it on the page wherever you specify, and even provide macros for totals, page breaks and field length.

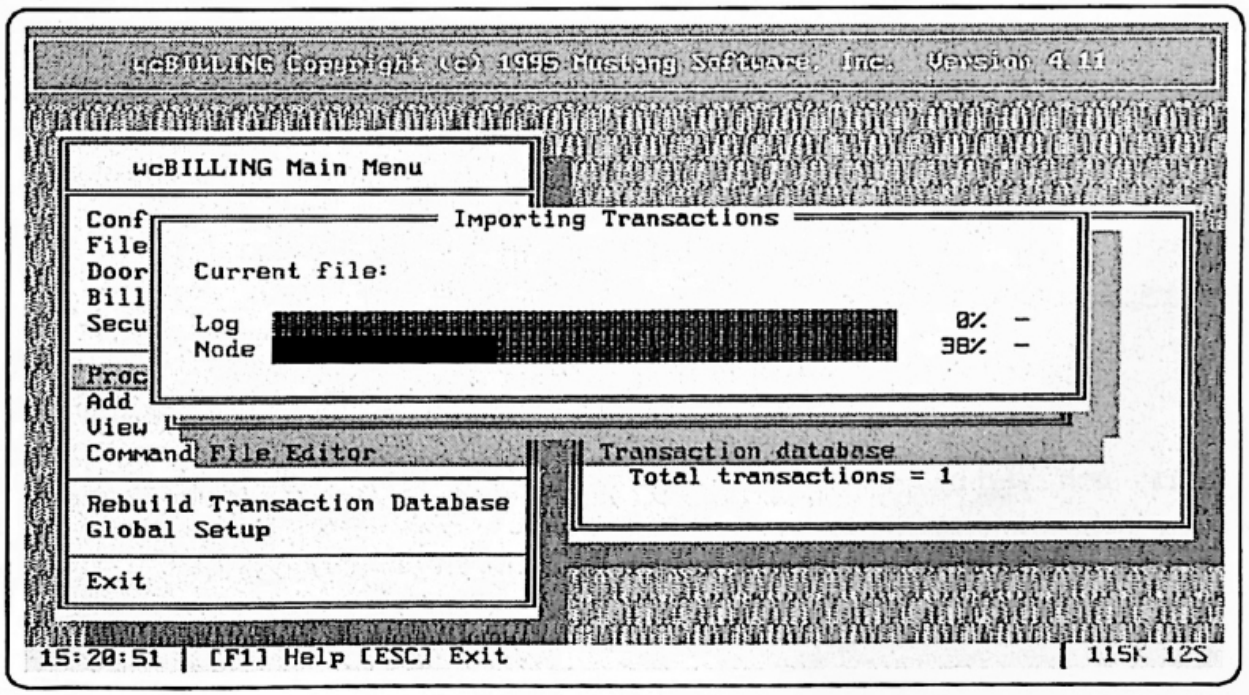
All of these maintenance functions can be performed interactively from the *wcBILLING* main menu, or automatically through the use of command files during a scheduled maintenance event.

Process Billing Logs

Before you can perform any *wcBILLING* maintenance activities, such as viewing transactions, sending invoices, or exporting data for other programs, you must process the Billing Logs. You can do this manually, from this menu, or you can create a command file to process the logs automatically during a system event.

We will discuss manual processing in the following paragraphs. For more information on automated processing, refer to the section later in this chapter on the **Command File Editor.**

When you process the Billing Logs, *wcBILLING* extracts information about each caller's activity from a set of log files created by *Wildcat!* in the BILLING directory, under the WILDCAT home directory (normally C:\WILDCAT). The information *wcBILLING* extracts from the logs is added to the Transaction Database.



There are three ways to handle your billing log after processing. The proper way to archive your billing logs depends on what further use you plan to make of them. If you select **Erase** or **Rename,** you should consider backing up the billing log before processing, so that you can refer to it in the event of a disputed charge. If you select **Append**, you will need to trim this log from time to conserve disk space.

When you have finished making your selections, press F10 to begin processing.

Append to *.bak

Select **Append to *.bak** if you want to save a backup copy of the current billing log at the end of the current backup file. This option will preserve all your billing log data until you manually delete the file. Note that over time this backup file can become quite large. You should delete or archive it periodically to conserve disk space.

Overwrite and Rename to *.bak

Select **Overwrite and rename** to save a backup copy of your billing log. Any previous backups will be deleted when processing begins. Be careful with this option. Once the old backup file has been deleted, you may need to use special utilities to recover it, and it may not be possible to recover the deleted file at all.

Erase during process

Select **Erase during process** if you don't want to save your billing log. *wcBILLING* will delete information from the file for each transaction added to the transaction database. Be careful with this option — deleted files cannot normally be recovered successfully without special software.

Add Payment

There are two ways to credit payments to your user accounts. Use the **Add Payment** menu command to add one payment at a time, manually, or the **Import Transactions** command to process batches of payments.

We will discuss manual processing in the following paragraphs. For more information on automated processing, refer to the section later in this chapter on **Importing Transactions.**

User name

Type the name of the user here, or use the User ID field below to identify the user to whose account the payment should be posted.

User ID

Enter the User ID for the caller instead of the name, if you prefer. If you allow duplicate user names on your system (a *MAKEWILD* setting), you should always look up users by user ID number. That way, you can be sure you are crediting a payment to the correct user account.

Payment amount

Enter the amount of the payment in credits in this field. For instance, if a caller makes a payment of $10.00, and a credit is worth 1 cent, enter 1000 in this field. When you press F9, *wcBILLING* will adjust the caller's credit account accordingly.

Comment

Enter a comment in this field. Normally, this would be a note that a payment was posted, along with the date and any other comment you want to add to this record. You can enter up to 60 characters here.

View Transactions

The transaction database is a line by line list of current billing transactions. *wcBILLING* does not add new transactions to the transaction database automatically — you need to import the billing logs periodically, using the menu selection **Process Billing Logs**. You can also do this from a command script — see the section later in this chapter on Command Files for more information.

Browse All Transactions

```
wcBILLING Copyright (c) 1995 Mustang Software, Inc.  Version 9.11
                    Transaction Database
User Name                Date          Cost Transaction Type    Inv Comment

AARON AASHTRAY           05/11/1995       0 Log on               No
AARON AASHTRAY           05/11/1995       0 File download        No
AARON AASHTRAY           05/11/1995       0 File upload          No
AARON AASHTRAY           05/11/1995       0 Entered door         No
AARON AASHTRAY           05/11/1995       0 Exited door          No
AARON AASHTRAY           05/11/1995       0 Log off              No
BRADLEY THROWRUG         05/11/1995       0 Log on               No
BRADLEY THROWRUG         05/11/1995       0 File download        No
BRADLEY THROWRUG         05/11/1995       0 File download        No
BRADLEY THROWRUG         05/11/1995       0 File download        No
BRADLEY THROWRUG         05/11/1995       0 Log off              No
PATRICIA PLASTIC         05/11/1995       0 Log on               No
PATRICIA PLASTIC         05/11/1995       0 Message read         No
PATRICIA PLASTIC         05/11/1995       0 File download        No
PATRICIA PLASTIC         05/11/1995       0 File download        No
PATRICIA PLASTIC         05/11/1995       0 Entered door         No
PATRICIA PLASTIC         05/11/1995       0 Exited door          No

F9  Hot Keys                                          ESC Exit
15:36:54 | [F1] Help [ESC] Exit                        | 106K 14S
```

The Transaction Database browse window shows each transaction record on a separate line. You can scroll left and right in this window to see more information.

By default, the transaction window is sorted by transaction number, from lowest (oldest) to highest (newest). Press ALT S to pop up a list of other sort options.

To edit a record, select it with the highlight bar and press [ENTER].

Hot keys

You can use the following hot keys at any time in the browse window. Press [F9] to pop up a selection list of available keys.

[ALT] [F] Find

The options for this function depend on the way the fields in the browse window are sorted. The default sort order is by transaction number, *wcBILLING* will prompt you for the transaction number to locate. To locate fields by User ID, transaction type or date and time processed, first sort the window accordingly.

[ALT] [M] Match

This hot key pops up the Transaction Match Editor window, allowing you to search for transaction records containing the information you enter here. The Match Editor window is discussed in more detail later on in this section.

[ALT] [D] Delete

You can delete the highlighted transaction record, or you can tag a group of transactions with the [SPACE] for batch deletion. *wcBILLING* will prompt you for confirmation before deleting the records.

[ALT] [A] Add

This hot key allows you to add a transaction record manually. A data entry window will pop up so you can fill in each field. This window is the same as the Edit Entry window, and is discussed in more detail later in this section.

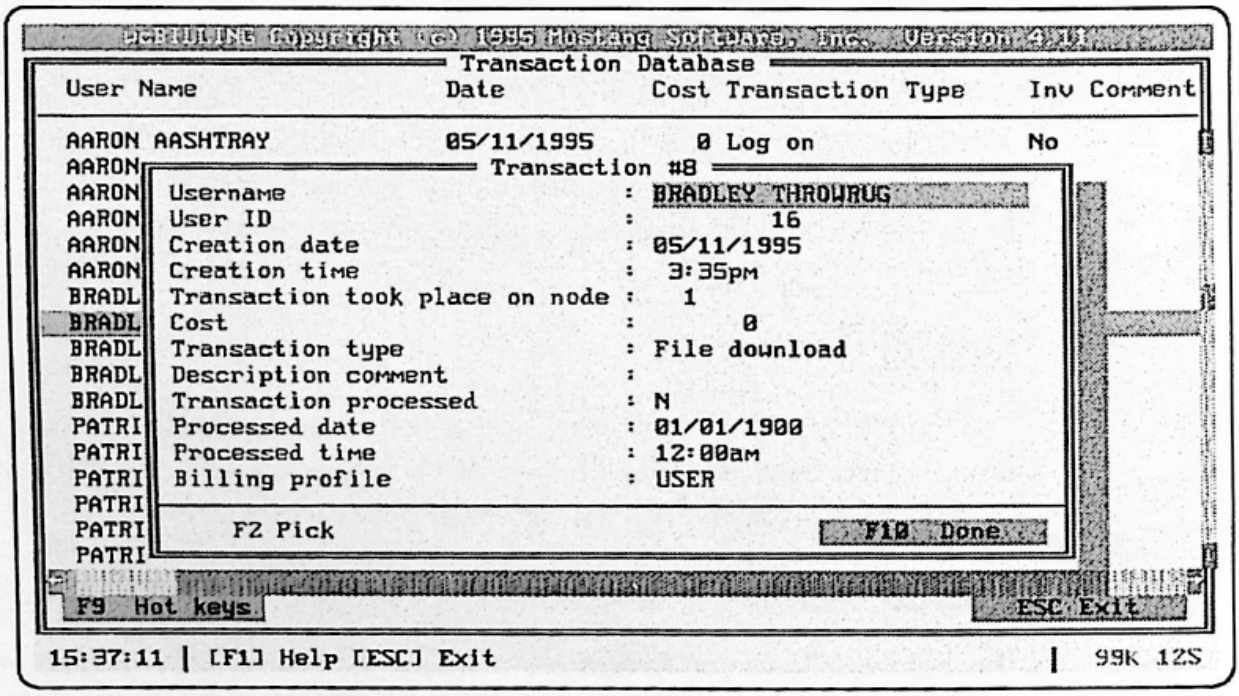
ALT S Sort Key

By default, the transaction records are shown in numerical order, by transaction **Number.** You can also sort the browse window by **User ID**, Transaction **Type**, and Date/Time **Processed.**

SPACE Tag

You can tag transaction records for deletion by marking them with the SPACE . Press SPACE again to un-tag an entry.

ENTER Edit



Press ENTER to pop up the Edit Transaction window. From this window, you can view and change the information in any transaction record. At the top of the edit window is the transaction number. *wcBILLING* logs its transactions in numerical order, from lowest (earliest) to highest (most recent).

User ID

This is the user ID number of the user who performed the transaction. You can enter a different user ID number in this field to charge the current transaction to a different user. *wcBILLING* will automatically fill in the user name corresponding with this user ID number in the next field.

Username

This is the first and last names of the user who performed the transaction. You can enter a different user name in this field to charge the current transaction to a different user. *wcBILLING* will automatically fill in the user ID number corresponding with this user number.

Tip

If you have turned on **Duplicate User Name** support in *MAKEWILD*, *wcBILLING* will find the *first* user name and ID matching the user name you input here. To avoid the possibility of charging a transaction to the wrong user in this case, you should enter the user ID number rather than the user name.

Creation date
Creation time

This is the date and time the transaction was created. *wcBILLING* uses the date and time format from *MAKEWILD* for these two fields.

Transaction took place on node

This is the node number the caller was logged into when the transaction was recorded.

Cost

This is the total cost in credits for the transaction. *wcBILLING* will translate this credit cost into currency units based on the billing profile configuration item **Unit of currency in credits.**

Transaction type

This is the type of transaction recorded. Press F2 to pop up a selection list of valid transaction types. Notice that you can scroll up and down in this window to see the entire list of selections.

File download

The caller downloaded a file from an area to which charges apply. File download charges are set in two ways:

- **File Area Billing** in *wcBILLING*,
- **File Cost** field in the file database in *Wildcat!*

You can charge file downloads to the **credit account,** the **subscription balance,** or both.

File upload

The caller uploaded a file to an area to which charges apply. File upload charges are set in the **File Area Billing** section of *wcBILLING*.

Log on

The caller logged on to the BBS. *wcBILLING* begins charging its per minute rate at the time the caller logs on.

Log off

This is the time the caller logged off, with the total time in minutes the caller was on line. *wcBILLING* uses this total time to calculate the charge for the call based on cost per minute.

Entered door

The caller entered a door for which charges apply. Door charges are set from the **Door Billing** section of *wcBILLING*. You can charge a caller a flat fee to enter a door and a cost per minute to use the door.

Exited door

The caller left the door and returned to the BBS. *wcBILLING* will stop charging the per minute rate for the door, and resume charging the regular *Wildcat!* per minute rate.

Message written

The caller wrote a message in a conference to which charges apply. Charges apply to original messages, replies, carbon copies, messages the caller forwards to someone else, and messages written from the File/Info menu command to the uploader of a file.

Message read

The caller read a message in a conference to which charges apply. The charge will apply whether the caller read the message on-line or downloaded it from *wcMAIL*.

Balance expired

The caller's credit account reached 0 credits (for pre-pay systems) or the preset maximum negative balance (for post-pay systems). The caller will not be able to do anything for which charges apply until his credit account is replenished, either manually or by processing an import file from the **Browse Transaction Database/Import Text Files** command.

Download attachment

The caller downloaded a message attachment from a conference for which charges apply. Charges are defined conference by conference in the **Conference Billing Rates** section of *wcBILLING*.

Upload attachment

The caller uploaded a message attachment from a conference for which charges apply. Charges are defined conference by conference in the **Conference Billing Rates** section of *wcBILLING*.

Payment

A payment was posted to this caller's credit account. You can post payments manually from the main *wcBILLING* menu, or you can import a list of user IDs and payment amounts from the **View Transactions/Import Transactions** menu selection. You can automate the procedure by creating a **Command File.**

Miscellaneous

This field is for any other type of transaction not listed above. Third party programs and *wcCODE* applications may use this field to record billing transactions of their own, or you can enter data manually here. You should use the **Description Comment** field to record the nature of the transaction, for your own reference.

Description comment

This text field describes the transaction. *Wildcat!* automatically fills in this field with information about the transaction. You can add your own note here if you wish.

Transaction processed

This is a Yes/No field. The answer is Yes if the transaction has been processed, No if it is waiting to be processed.

Processed date

This is the date on which the transaction was processed. Note that this is not the same as the creation date for this transaction.

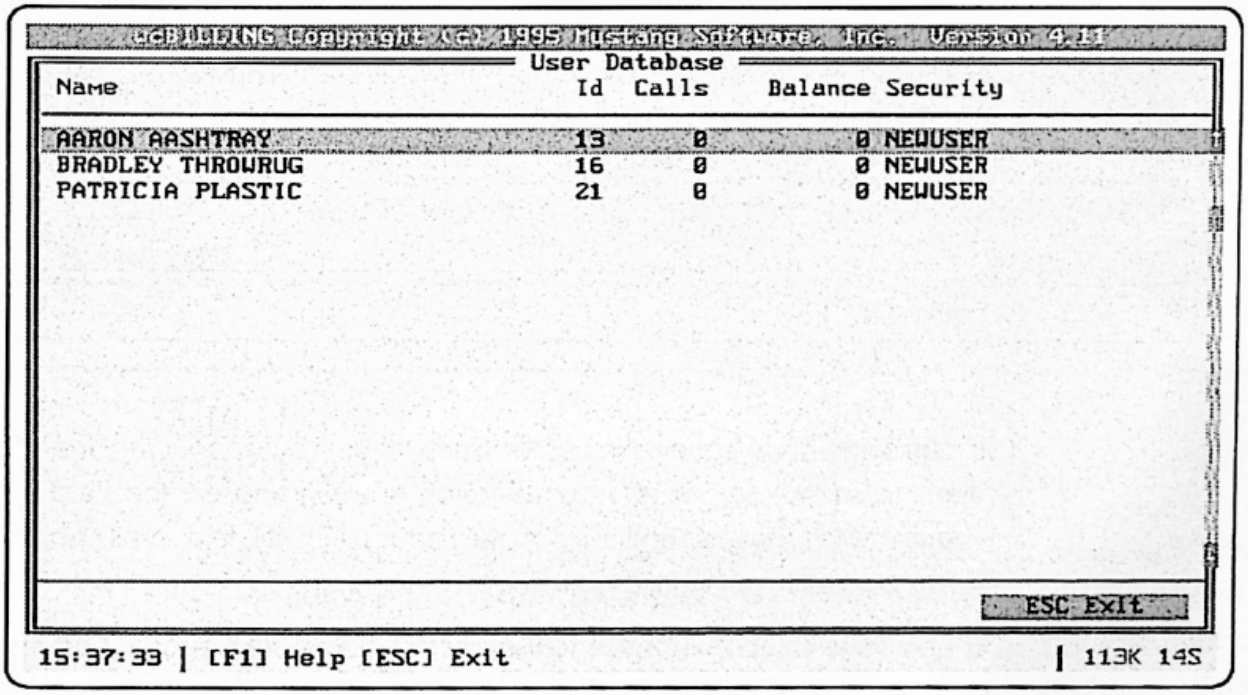
Processed time

This is the time at which the transaction was processed. Note that this is not the same as the creation time for this transaction.

Billing profile

This is the billing profile associated with the transaction.

Browse User Records



The **User Database** window shows each user record with one or more transactions, with one line for each record. The User Name, User ID, number of **Calls**, credit account **Balance** and **Security** profile are shown.

You can view all transactions for a specific user by selecting that user from the Browse Users screen. Press [ALT] [F] to look up a specific user name, then press [ENTER] to view a list of the user's transactions.

Search for Transactions

```
webilling Copyright (c) 1995 Mustang Software, Inc.  Version 4.10
                    Transaction Database
User Name                  Date          Cost Transaction Type    Inv Comment

A              Transaction Match Editor DEFAULT
A  Transaction number: 0                 To:   2147483647
A  User ID number    : 0                 To:   2147483647
A  Username          :
A  Node ID           : 0                 To:   250
A  Cost              : -32760            To:    32760
B  Comment field     :
B  Processed         : Both
B  Transaction date  : 01/01/1900        To:
B  Transaction age   : 0          Condition: Greater than or equal to
B  Processed date    : 01/01/1900        To:
P  Transaction type  : DW UP ON OFF DOR RET WRT RD EXP DAT UAT PAY MIS
P  Billing profile   :
P
P   F2 Pick    Alt-L Load    Alt-S Save    Alt-C Clear    F10 Done
P
PATRICIA PLASTIC          05/11/1995        0 Exited door          No
F9 Hot keys                                                  ESC Exit
15:37:52 | [F1] Help [ESC] Exit                                | 98K 12S
```

You can search for specific types of transactions by specifying the kinds of items to search for, in any combination. Depending on the field type, you can match on numeric and date ranges, literal text, yes/no/both conditions, and specific transaction types.

You can save match filters for re-use during automated processing using command files, or for manual editing or processing.

Match item	Match type	Parameters
Transaction Number	Numeric range	0 to 2147483647
User ID Number	Numeric range	0 to 2147483647
Username	Text	Finds specified text anywhere within this field.
Node ID	Numeric range	0 to maximum in NODEINFO.DAT

Match item	Match type	Parameters
Cost	Numeric range	–32760 to 32760
Comment field	Text	Finds specified text anywhere within this field.
Processed	Boolean	Yes, No, or Both
Transaction Date	Date range	Any calendar date within range.
Transaction Age	Numeric	Greater than or equal to number of days Less than or equal to number of days
Processed Date	Date range	Any calendar date within range.
Transaction Type	Selection list	Select one or more of the following: File Download, File Upload, Log In, Total time, Entered Door, Logged out of Door, Message Written, Message Read, Balance Expired, Download Attachment, Upload Attachment, Miscellaneous
Billing Profile	Selection list	Select from user-defined list of billing profiles.

ALT L Load
ALT S Save

When you have finished selecting the types of fields you want *wcBILLING* to match on, you can save your configuration so that you don't have to repeat the configuration process every time you search. You can also use the stored configuration to process your transactions automatically during a system event, using the *wcBILLING* command processor. Use ALT S to save your settings to a file, and ALT L to load a previously saved file from the disk. *wcBILLING* match filters are saved with the default extension BTM.

Add Payments

There are two ways to credit payments to your user accounts. Use the **Add Payment** menu command to add one payment at a time, manually, or the **Import Transactions** command to process batches of payments.

We will discuss manual processing in the following paragraphs. For more information on automated processing, refer to the section later in this chapter on **Importing Transactions.**

User name

Type the name of the user here, or use the User ID field below to identify the user to whose account the payment should be posted.

User ID

Enter the User ID for the caller instead of the name, if you prefer. If you allow duplicate user names on your system (a *MAKEWILD* setting), you should always look up users by user ID number. That way, you can be sure you are crediting a payment to the correct user account.

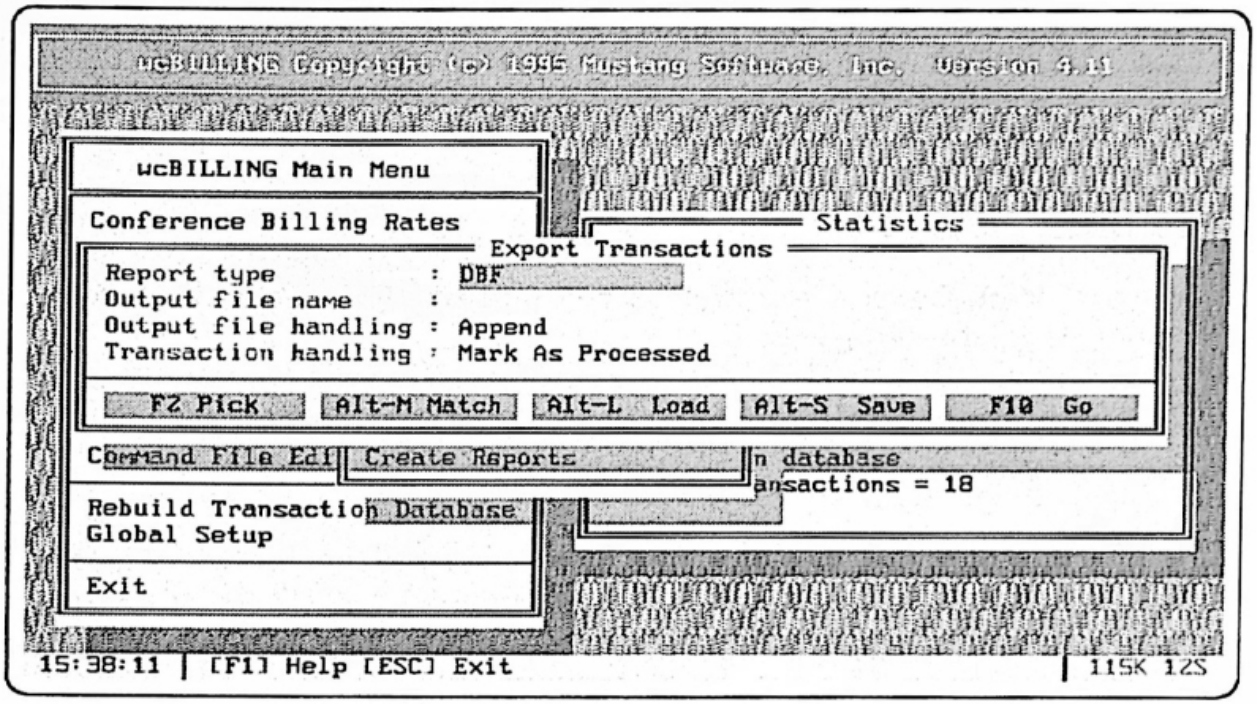
Payment

Enter the amount of the payment in credits in this field. For instance, if a caller makes a payment of $10.00, and a credit is worth 1 cent, enter 1000 in this field. When you press ⊡, *wcBILLING* will record the transaction and adjust the caller's credit account accordingly.

Comment

Enter a comment in this field. Normally, this would be a note that a payment was posted, along with the date and any other comment you want to add to this record. You can enter up to 70 characters here.

Export Transactions



Report type

wcBILLING also supports three common data-import formats: DBF (dBase), comma delimited (Mail Merge) and fixed length, ready to import into other applications for further processing.

DBF (dBase)

DBF or dBase format is a structured record listing conforming to the specifications of Borland's DBF file format. It can be read and imported by dBase or compatible programs. You can find a complete list of mailmerge fields starting on page 127.

Comma delimited

Comma delimited is an output format also known as mailmerge. This type of file is used by many word processors and database programs for importing records. It places each selected record on a separate line with individual fields separated by commas and enclosed in quotation marks. An example line of a comma delimited file is:

```
"4","FULLUSER","GWEN BARNES","1","04/03/1995","","176","18"
```

Note that any fields that contain blanks are still included, but with no text between the quotes.

The actual output file contains much more information than the fragment shown here. You can find a complete list of mailmerge fields starting on page 127.

There are two ways to use a comma-delimited report. The first is to import the data into a standalone accounting package, which then updates customer accounts and generates invoices ready for mailing. The documentation for your accounting software will provide information on how to match up the output fields from *wcBILLING* with the input fields in your accounting program.

This has the advantage of managing your BBS revenues as part of your regular business activities, without requiring additional data input or record keeping. However, this may be more than some small businesses require.

The other method is to use your word processor's mailmerge function to import *wcBILLING* output files and then generate invoices automatically. This may be suitable for small operations that do not require the extensive record keeping capabilities of a full-fledged accounting program,

Fixed length

Fixed length is an output format in which records are listed one record per line with each field padded with spaces to the right. One field immedi-

ately follows the next with no spaces or other delimiters. This format is also used by many database programs for importing information. A fixed length file looks like:

```
1          FULLUSER GWEN BARNES                1          04/05/1995
```

The actual output file contains much more information than the fragment shown here. You can find a complete list of mailmerge fields starting on page 127.

Output file name

Enter the name of the output file to create. If a file of the same name already exists, *wcBILLING* will either overwrite or append to the existing file according to the option you select for the following item.

Output file handling

wcBILLING has two ways of handling output files where a file of the same name already exists.

Overwrite

Select **Overwrite** if you want to erase the previous file, and create a new file containing only the data from the current processing session.

Append

Select **Append** if you want to keep the previous file, and add the new data from the current processing session to the end of the file.

Transaction handling

wcBILLING has three ways of handling transactions as they are processed:

Mark as processed

Select **Mark as processed** if you want to keep processed transactions in your database, with a flag indicating that the transaction has been processed.

Don't change

Select **Don't change** if you want to keep processed transactions in your database, with no indication that they have been processed. Use caution with this setting — if the status of a processed transaction is not changed after processing, it will be possible to process the same transaction more than once.

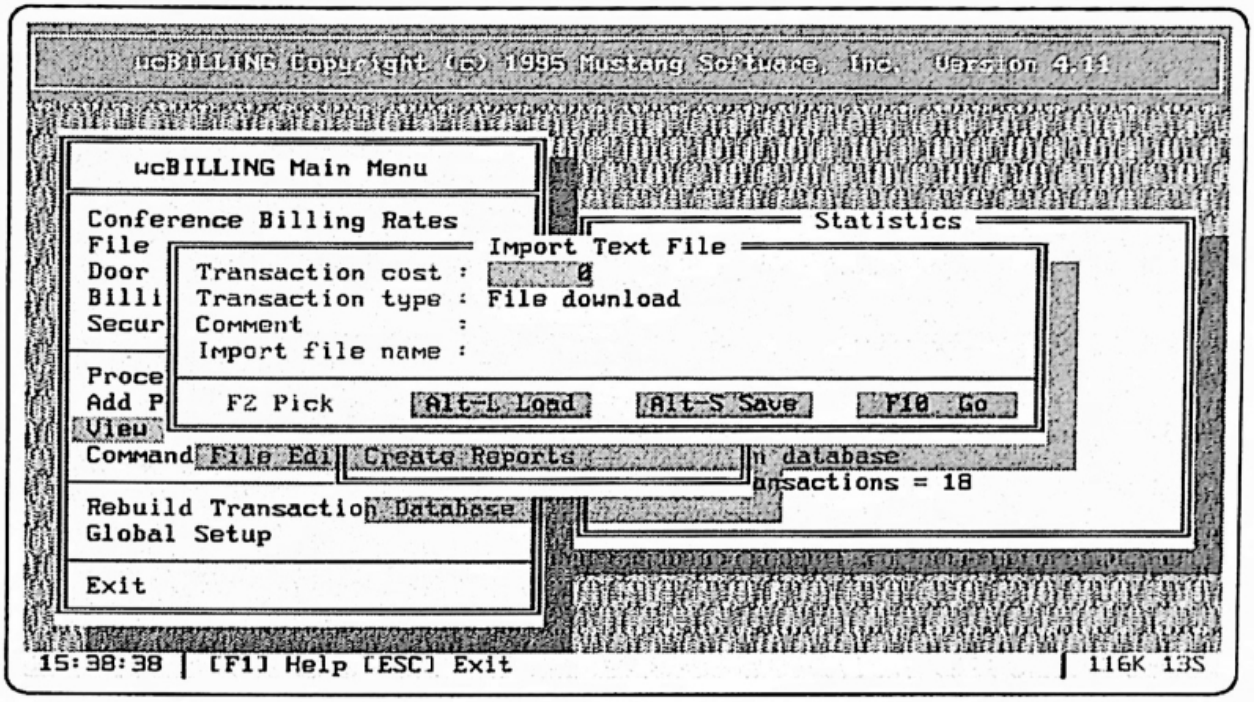
Delete Transaction

Select **Delete Transaction** if you want to remove the processed transactions from the transaction database. Note that once a transaction has been deleted, it cannot be recovered.

Import Transactions

You can add records to the transaction database automatically by importing a text file of user names and acting on them with the parameters in this window. This is an easy way to update credit accounts after processing callers' payments, or assessing charges or credits for specific activities not provided for within the program.

You can load and save import profiles for re-use during command script execution. Note that you can only process one transaction per user name at a time. To process multiple transactions for the same group of users, process the list multiple times, changing the transaction information accordingly.



Preparing a text file

Only users listed in this file will be processed during the import transaction operation. This is a fixed-length file with three data fields. The first field is padded to 25 spaces, and consists of the user's login name. The second field, padded to 10 spaces, is the user ID number. The third, again padded to 10 spaces, is the amount to charge or credit for this transaction. Positive values are charged to a user account, while negative values are credited.

The **User ID** and **Cost** fields are optional. User ID is only required if you allow duplicate user names on the BBS. An entry in the Cost field for any user will override the **Transaction cost** entered in the **Import Transactions** window.

Here is an example of a properly-formatted import file:

GWEN BARNES	1	-15000
JOHN SMITH	2	500
JOHN SMITH	10	1000
STEVE CRIPPEN	7	2000
RICK HEMING	9	1000
SAM ROBERTSON	11	-1800
PAT POWERS	6	-12000
WESTON FRYATT	12	995

Transaction cost

This is the cost for the imported transaction. Enter a postive number to deduct from the caller's account balance, or a negative number to add to the caller's balance.

Values in the Cost field of the import file will override any cost you enter in the Transaction cost in this window.

Transaction type

This is the type of transaction recorded. Press F2 to pop up a selection list of valid transaction types. *wcBILLING* will charge the amount you specify in the **Transaction Cost** field for the transaction you specify here. Remember that values in the Cost field of the import file will override any cost you enter in the Transaction cost in this window.

File download

The caller downloaded a file from an area to which charges apply.

File upload

The caller uploaded a file attachment to an area to which charges apply.

Log on

The caller logged on to the BBS.

Log off

The caller logged off the BBS.

Entered door

The caller entered a door for which charges apply.

Exited door

The caller left the door and returned to the BBS.

Message written

The caller wrote a message in a conference to which charges apply.

Message read

The caller read a message in a conference to which charges apply.

Balance expired

The caller's credit account reached 0 credits (for pre-pay systems) or the preset maximum negative balance (for post-pay systems).

Download attachment

The caller downloaded a message attachment from a conference for which charges apply.

Upload attachment

The caller uploaded a message attachment from a conference for which charges apply.

Payment

Enter the amount of the payment in credits in this field. For instance, if a caller makes a payment of $10.00, and a credit is worth 1 cent, enter 1000 in this field.

Miscellaneous

This field is for any other type of transaction not listed above. Third party programs and *wcCODE* applications may use this field to record billing transactions of their own, or you can enter data manually here. You should use the **Description Comment** field to record the nature of the transaction, for your own reference.

Import file name

This is the name of the text file list of names and user ID numbers to import for processing. Use the F2 key to pop up a directory list to select a file, or type the file name directly in this field.

Create Reports

A report is a text file containing data extracted from your transaction database. Reports are based on templates you create using a text editor. A template file consists of text plus *Wildcat!* and *wcBILLING* macros that *wcBILLING* fills in with transaction data, along with formatting information, when it creates your report.

There are two types of reports: **User reports** and **Overall reports:**

- User reports contain activity for each specific user
- Overall reports contain totals for all selected transactions.

You can use reports in a variety of ways. The most obvious is to create invoices consisting of a user's name, address, a list of transactions, and a total amount owing, computed using *wcBILLING* macros.

You can use standard preprinted invoice forms from your office supply store, using the template files provided with *wcBILLING*, or you can use template macros to create your own custom invoice formats.

You can also use report templates to create a statistical snapshot of your billing system — for instance, total file download charges or message charges for each billing profile.

Finally, you can create customized output files that can be used by other programs, for instance on-line check validation programs or credit card billing programs.

Later on in this section we'll discuss how to create your own report template files. You'll also find a list of templates supplied with *wcBILLING*, designed to be used with a number of easily obtained preprinted invoice forms.

```
wcBILLING Copyright (c) 1995 Mustang Software, Inc.  Version 4.11
                        Create Reports
Transaction handling : Mark As Processed
                        User Reporting
Template file:
Reporting     : File or Printer
Output file   :
File handling: Append
Conference    : 0
From Username:                          UserID: 0
Subject       :
                       Overall Reporting
Template file:
Reporting     : File or Printer
Output file   :
File handling: Append
Conference    : 0
To Username   :                         UserID: 0
Subject       :
F2 Pick | Alt-M Match | Alt-L Load | Alt-S Save | F10 Go
15:39:00 | [F1] Help [ESC] Exit                    | 109K 12S
```

User and Overall transaction reports have their own sections in this screen. Since the information in each section differs only slightly, they will be discussed together, with the differences noted where they occur.

Transaction handling

wcBILLING has three ways of handling transactions as they are processed:

Mark as processed

Select **Mark as processed** if you want to keep processed transactions in your database, with a flag indicating that the transaction has been processed and can be ignored in future processing sessions.

Don't change

Select **Don't change** if you want to keep processed transactions in your database, with no indication that they have been processed. Use caution with this setting — if the status of a processed transaction is not changed after processing, it will be possible to process the same transaction more than once.

Delete Transaction

Select **Delete Transaction** if you want to remove the processed transactions from the transaction database. Note that once a transaction has been deleted, it cannot be recovered.

Template file name

This is the name of the template file to use for these invoices. Press F2 to pop up a selection list. You can find a full list of template macros starting on page 130. On page 107 you can find a discussion on creating custom templates.

Reporting

You can choose to create your reports as files saved to your disk or sent directly to your printer, or as e-mail messages on your BBS.

Output file

This is the name of the output file to create. You can specify LPTx (x being your printer port) to output these invoices directly to the printer, or you can output to a text file that you can print later. Press F2 to pop up a selection list.

It is probably best to output to a file, then copy the file to the printer. This way, if the print job is interrupted for any reason, the remaining job is still available for printing.

This field is only available for input if the reporting type is set to **disk or printer.**

File handling

This field is only available for input if the reporting type is set to **disk or printer.** These options are used only when you are outputting to a text file — *wcBILLING* will ignore these settings if you selected LPTx as your output file name.

The easiest way to print invoices from an output file is to use the DOS command

```
COPY filename.ext LPT1 ENTER
```

Or, you can import the file into a word processor, format it and print it from the application.

Overwrite

Select **Overwrite** if you want *wcBILLING* to replace a file with the same name with the output from this processing cycle. Any previous information in the file will be deleted, so you should take steps to back up this information before you proceed.

Append

Select **Append** if you want *wcBILLING* to output the new billing information at the end of an existing file. This preserves your data from previous processing cycles, but could cause duplicate invoices to be printed if you then copy the entire output file to your printer.

Conference

This field is only available for input if the reporting type is set to **E-mail message.** Select a message conference on your BBS for *wcBILLING* to use for its reports. The conference should be configured to allow private messages, so that these reports are visible only to the sender or addressee. Press F2 to pop up a selection list of conferences.

From/To Username

This field is only available for input if the reporting type is set to **E-mail message.** If you are creating user reports, *wcBILLING* will automatically address the message to each user whose transactions are processed. Enter the name you would like these messages to be addressed **from.**

If you are creating overall reports, *wcBILLING* will address the message to the user name you specify in this field — this would normally be yourself as the Sysop.

Subject

This field is only available for input if the reporting type is set to **E-mail message.** Enter the **Subject** *wcBILLING* should use for these E-mail messages.

Creating report template files

This is an example of a simple template file to print invoices on plain paper. Notice that it makes use of macros to insert the date, the caller's name and address, and a list of billing transactions under a heading.

```
The EDGE BBS                          @DATE@
6200 Lake Ming Road
Bakersfield, Ca. 93306
805-873-9724

To:
@LAST@, @FIRST@
@ADDR1@
@CITY@, @STATE@.  @ZIP@

---------------------------------------------------------------------------


Number     |Date       |Node|Transaction type ----------------------------

@BGETNEXT@@BNUMBER<10@ @BTDATE<10@ @BNODEID<4@ @BTYPE<20@   @BCOST>10@
@BGETNEXT@@BNUMBER<10@ @BTDATE<10@ @BNODEID<4@ @BTYPE<20@   @BCOST>10@
@BGETNEXT@@BNUMBER<10@ @BTDATE<10@ @BNODEID<4@ @BTYPE<20@   @BCOST>10@
@BGETNEXT@@BNUMBER<10@ @BTDATE<10@ @BNODEID<4@ @BTYPE<20@   @BCOST>10@


-------------------------------------------------------------@BGRNDTOTAL>10@
```

Preprinted invoice forms

Office supply stores and printing companies can supply you with preprinted invoice forms that can be used easily with *wcBILLING*. These forms are designed to work with the standard monospaced printer font (10 characters per inch horizontal spacing) and line spacing formats (six lines per inch vertical spacing) on dot-matrix printers.

wcBILLING can print invoices using templates you create with a text editor. We have included a number of sample templates designed to be used with a selection of preprinted forms. Many companies make compatible forms, and you can find compatibility charts in most office supply catalogs.

The following table shows which sample templates to use with each form. The form numbers listed here are for continuous multi-part tractor feed forms, suitable for use in a dot-matrix printer. Most continuous forms are

available in 1 to 4 parts. Laser versions of all these forms are also available from most office-supply and business forms vendors.

Template name	Form number	Notes
INV1690.TXT	Moore: Series 1680 Tops: TOP-50253 Viking: N04-CI102	AccPac Plus Invoice
MP3105.TXT	Moore: Series 3105 Tops: TOP-50133 Viking: N04-GP622	Microsoft Profit Multipurpose form
MP3020.TXT	Moore: Series 3020 Tops: TOP-50253 Viking: N04-GP03	Peachtree Accounting Multi-purpose form
MP3080.TXT	Moore: Series 3080 Tops: TOP-50204	Manzanita/Micro Plus Multi-purpose form

You can modify these templates using any text editor capable of saving plain ASCII files, for instance MS-DOS EDIT, EDLIN, or Qedit.

Command File Editor

What is a command file?

A command file is one or more lines of instructions for *wcBILLING*. Each line specifies the type of operation, match filter or configuration files to load, and any additional parameters for the operation.

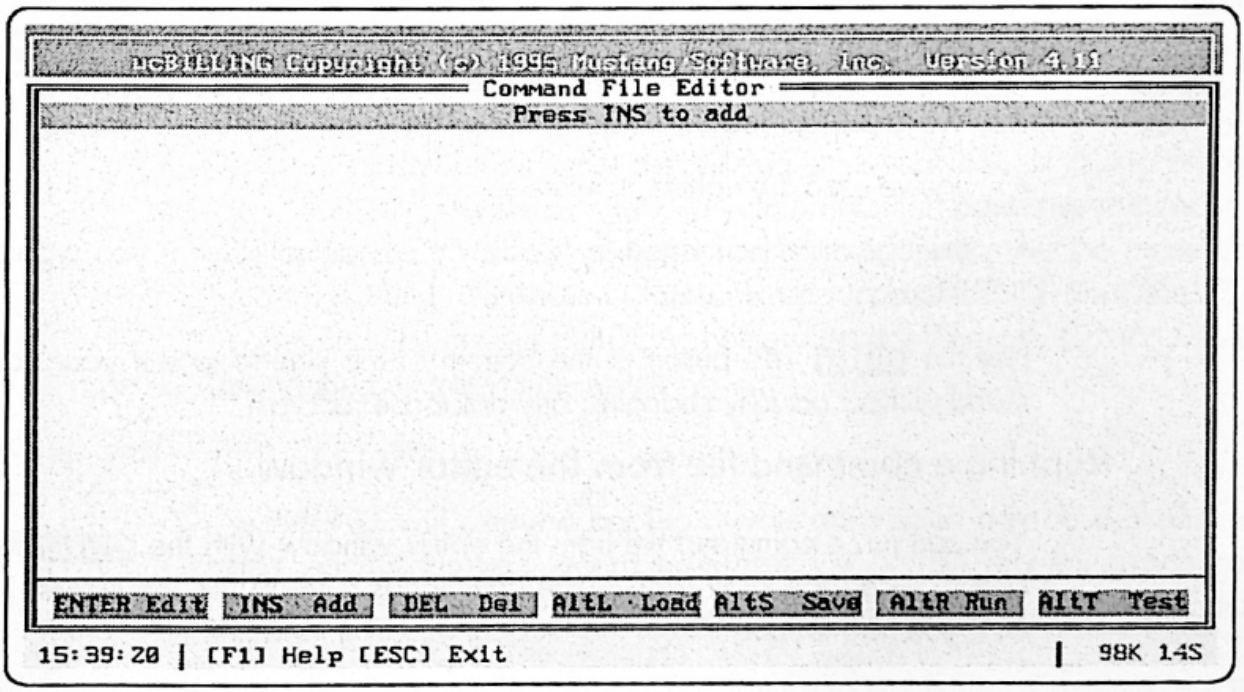
The *wcBILLING* command language is extremely simple to understand. Here is an example of a typical command file:

```
PROCESS EXPORT USING NIGHTLY MATCHING NIGHTLY.BTM
```

Command files are even easier to write — *wcBILLING* does all the work for you. The Command File editor asks you a series of questions about the work you would like to perform, and creates the command line automatically. From there, you can test or run your command script, then save it to disk once you've verified that it works as expected.

Using the Command File editor

To start the editor, select Command Files from the *wcBILLING* main menu.



A single command file can contain up to 50 separate command lines, each of which performs one *wcBILLING* operation.

Now press INS to add a line to the command file. Two more windows will pop up over the editor window. The window at the top of the screen shows the current command line. The window near the bottom of the screen shows a list of all the possible operations you can perform.

Press ENTER to select the operation you want to perform. Another window will pop up so you can enter the additional information *wcBILLING* needs to execute your command. You enter data in this window in the same way as most other data entry windows in *wcPRO* and other *Wildcat!* utilities.

Loading and saving command files

The ALT L Load and ALT S Save buttons in the Command File editor work in much the same way as the load and save functions in other parts of *wcBILLING*. Command files are saved with the extension .BCF.

Testing a command

Before you save and run your command file, it's a good idea to test it. That way, you can be sure that:

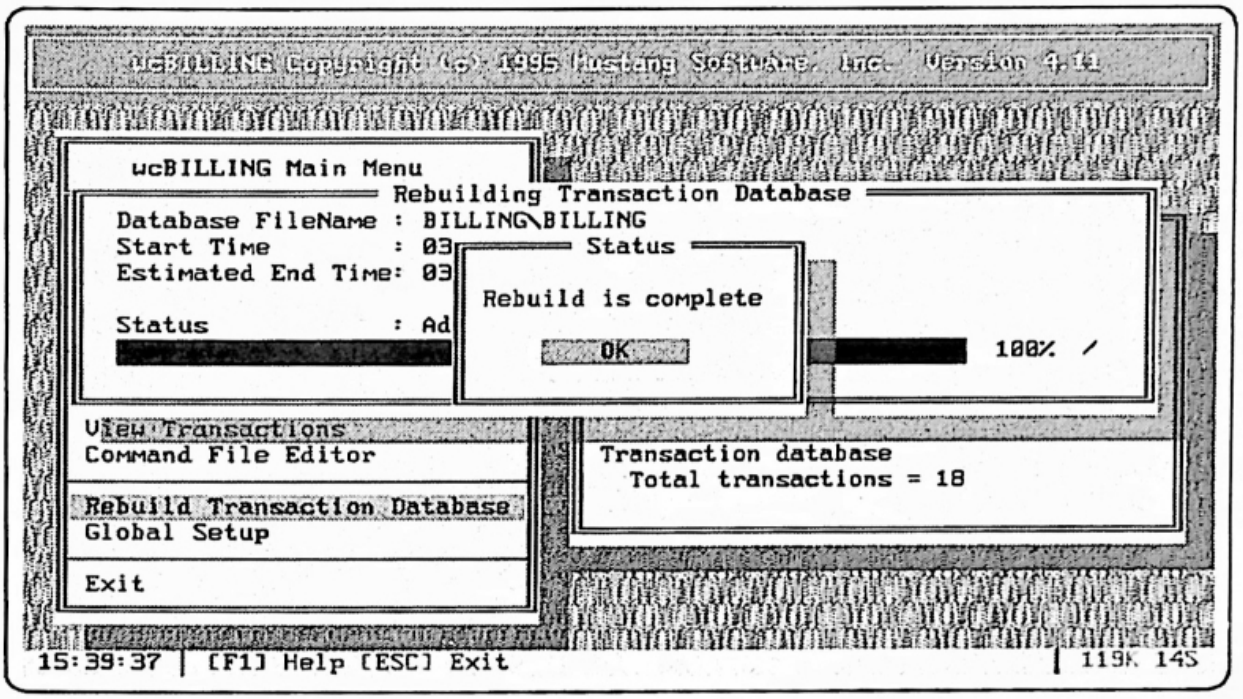
- you've used the right match filters,
- the operation performed by *wcBILLING* is actually what you wanted it to do.

Use the ALT T Test button at the bottom of the screen to test your command without actually changing any database records.

Running a command file from the editor window

You can run a command file from the editor window with the ALT R Run button. *wcBILLING* will execute the commands currently on the screen just as if you had loaded it from the *wcBILLING* command line.

Rebuild Transaction Database



You should periodically rebuild your transaction database to reclaim disk space used by records that are deleted either manually or during processing. You will also need to rebuild your transaction database if it becomes damaged as a result of a system crash or disk error. Use the menu command **Rebuild Transaction Database** or run *wcBILLING* from the DOS command line in your WILDCAT home directory (normally C:\WILDCAT), using the command line switch

```
WCBILL REBUILD
```

wcBILLING will create a backup of your transaction database, then it will add each undeleted record to a new file. When rebuilding has completed, the backup will be deleted, and the new transaction database will contain only active records.

Automated processing

Once a .BCF file has been saved to disk, unattended operation is possible, using batch files and *Wildcat!*'s event manager.

The format for executing a command file is:

```
WCBILL COMMAND.BCF
```

The command file COMMAND.BCF is executed in the same way as the [ALT] [R] command within the program. The screen display indicates all activity during execution. To set up an automatic event, follow the instructions in the Event Management section of the *Wildcat!* Sysop Guide.

Many routine billing tasks can be performed during a scheduled event by *wcBILLING*, using its built-in match filters and command files.

Designing an automated processing event

The following step by step procedures are designed to give you the basic information to create and run a simple set of automated processing events. You can modify any of these procedures later if you like, but always be sure to make a backup of important files and TEST any new procedure before you let it run unattended.

Tools you need

- A text editor, to create the batch files.
- PKUNZIP.EXE, to extract backup files from a compressed archive.
- PKZIP.EXE, to store your backup files in a compressed archive.
- A supply of preprinted invoice forms, loaded in your printer. See page 107 for a list of templates and forms.
- Your *Wildcat!* Sysop Guide.

Nightly: Process billing logs

Start *wcBILLING* and go to **Command Files.**

- Press INS to create a command file entry
- Select **Process Billing Logs.**
- In the **Log handling options** window, select **Append to *.BAK.**

The complete command script should say

```
PROCESS ACTIVITY HANDLING APPEND
```

Press ALT S to save this command file as NIGHTLY.BCF.

Using your text editor, create a batch file with the following instructions, and save it as NIGHTLY.BAT in your BATCH directory, below your WILDCAT home directory (normally C:\WILDCAT).

```
@ECHO OFF
@ECHO NOW EXECUTING NIGHTLY.BAT
C:
CD \WILDCAT
WCBILL NIGHTLY.BCF
```

Now log onto *Wildcat!* and go to the Sysop menu, and use the Edit Event menu command to create an event that runs every day during a non-busy period on your BBS.

Review the section on Events in Chapter 5 of your *Wildcat!* Sysop Guide if you are not familiar with the procedure for creating events. The following table shows the information needed to run the event correctly:

Field	Value
Type of Event	3. Run a batch file
Schedule to run event	Daily
Execute event on	Every day
Execution method	Optional. Soft or Flexible events are most convenient to your callers, Hard events take place precisely on schedule but may interrupt a caller's on-line time.
Method of execution	Optional. Shell for fastest processing, Terminate for maximum memory.
Path/Name of batch file to execute	`C:\WILDCAT\BATCH\NIGHTLY.BAT`

Weekly: Create invoices

Now that you have saved your nightly processing script, press ESC to return to the *wcBILLING* main menu. We will now create a match filter to locate the newest transactions.

Select **View Transactions** from the main menu, then select **Search for Transactions**. We will be searching for all transactions that have not yet been processed. When you pop up this window, each field will be filled in with the default values.

Your transaction match screen should match this chart:

Field	Value
Transaction Number	<unchanged>
User ID Number	<unchanged>
Username	<unchanged>
Node ID	<unchanged>
Cost	<unchanged>
Comment field	<unchanged>
Processed	Change to NO
Transaction Date	<unchanged>
Transaction Age	<unchanged>
Processed Date	<unchanged>
Transaction type	<unchanged>
Billing profile	<unchanged>

Remember, we are looking for *all* transactions that have *not yet* been processed. Press ALT S to save this match filter as WEEKLY.BTM.

Return to the **View Transactions** popup list, and select **Create Reports.** We are going to use one of the preprinted invoice template forms to create an output text file that you will then copy to your printer.

In the window that pops up, fill in the following information:

Field	Value
Template file name	Select the template file matching the invoice forms you will be using. See page 107 for a table listing the invoice templates provided with *wcBILLING*.
Output file name	INVOICES.OUT
Output file handling	Append (we will use a DOS batch file command to back up then delete the previous file.)
Transaction handling	Mark as processed

Save this report profile as WEEKLY.RPT.

Now, return to the **Command File Editor** and create a command script. Press [DEL] to delete any existing commands, then press [INS] to begin creating a new script. Select **Create Reports** from the **Edit Command** window, then enter WEEKLY.RPT as the Report Profile name. Press [ALT] [S] to save your command script as WEEKLY.BCF.

Using your text editor, create a batch file with the following instructions, and save it as WEEKLY.BAT in your BATCH directory, below your WILDCAT home directory (normally C:\WILDCAT).

```
@ECHO OFF
@ECHO NOW EXECUTING WEEKLY.BAT
C:
CD \WILDCAT\BILLING
PKUNZIP OLDBILLS INVOICES.OLD
TYPE INVOICES.OUT >> INVOICES.OLD
PKZIP OLDBILLS INVOICES.OLD -um
CD \WILDCAT
WCBILL WEEKLY.BCF
COPY INVOICES.OUT LPT1:
```

Three commands in this batch file warrant further explanation. The first,

```
PKUNZIP OLDBILLS INVOICES.OLD
```

extracts a backup of your invoice files from an archive. Don't worry if this file doesn't yet exist the first time you run this event — the event batch file will create it automatically when the output file is created.

The next command,

```
TYPE INVOICES.OUT >> INVOICES.OLD
```

appends last week's invoice output file to an archive file named INVOICES.OLD. Notice the DOS "redirection" command — for information on this and other DOS file handling functions, review your DOS manual.

The third command,

```
PKZIP OLDBILLS INVOICES.OLD -um
```

creates or updates the compressed file named OLDBILLS.ZIP, and puts your newly appended archive inside it. The command line argument -um *must* be in lower case, exactly as typed. This will **update** any existing file of the same name inside the ZIP file, then **move** the source file inside the ZIP, deleting the original.

Note that this event will copy the output file to your printer. Be sure your printer is switched on with the appropriate forms loaded, and verify that your printer is on line — otherwise DOS will return an error message requiring you to press a key to continue.

Now log onto *Wildcat!* and go to the Sysop menu, and use the Edit Event menu command to create an event that runs every day during a non-busy period on your BBS.

Review the section on Events in Chapter 5 of your *Wildcat!* Sysop Guide if you are not familiar with the procedure for creating events. The following table shows the information needed to run the event correctly:

Field	Value
Type of Event	3. Run a batch file
Schedule to run event	Daily (but only one day of the week)
Execute event on	Select the day of the week for your event to run.
Execution method	Optional. Soft or Flexible events are most convenient to your callers, Hard events take place precisely on schedule but may interrupt a caller's on-line time.
Method of execution	Optional. Shell for fastest processing, Terminate for maximum memory.
Path/Name of batch file to execute	`C:\WILDCAT\BATCH\WEEKLY.BAT`

Monthly: Clean up processed transactions and rebuild transaction database

As time goes by, you will want to remove non-current transactions from your transaction database, and rebuild the transaction database to reduce the amount of disk space it uses.

Since it is poor accounting practice to delete records completely, we will export the oldest transactions and append them to an archive file and delete the exported records, then rebuild the transaction database.

The first step is to create a match filter that finds all processed transactions that are older than 90 days. Go to the *wcBILLING* main menu and select **View Transactions.** From the popup list, select **Search for Transactions.** In the Transaction match screen, enter the following information:

Field	Value
Transaction Number	<unchanged>
User ID Number	<unchanged>
Username	<unchanged>
Node ID	<unchanged>
Cost	<unchanged>
Comment field	<unchanged>
Processed	Change to YES
Transaction Date	<unchanged>
Transaction Age	Greater than 90 days old
Processed Date	<unchanged>
Transaction type	<unchanged>
Billing profile	<unchanged>

Press ALT S to save this match filter as MONTHLY.BTM.

The next step is to create an export profile that exports these transactions to a comma-delimited "mailmerge" file, and deletes the processed rec-

ords. The reason for selecting comma delimited as an export format is that most accounting programs, databases and spreadsheets support this file format. Select Fixed Length or DBF if you prefer.

Your export profile screen should look like this:

Field	Value
Report type	Comma-delimited
Output file name	MONTHLY.OUT
Output file handling	Append
Transaction handling	Delete Transaction

Save your export profile as MONTHLY.BEX.

Now, return to the **Command File Editor** and create a command script. Press DEL to delete any existing commands, then press INS to begin creating a new script. Select **Export Transactions** from the **Edit Command** window, then enter MONTHLY.BTM as the **Match file name** and MONTHLY.BEX as the **Export profile name**. Press ALT S to save your command script as MONTHLY.BCF.

Using your text editor, create a batch file with the following instructions, and save it as MONTHLY.BAT in your BATCH directory, below your WILDCAT home directory (normally C:\WILDCAT).

```
@ECHO OFF
@ECHO NOW EXECUTING MONTHLY.BAT
C:
CD \WILDCAT\BILLING
PKUNZIP OLDBILLS MONTHLY.OLD
TYPE MONTHLY.OUT >> MONTHLY.OLD
PKZIP OLDBILLS MONTHLY.OLD -um
CD \WILDCAT
WCBILL MONTHLY.BCF
WCBILL REBUILD
```

Three commands in this batch file warrant further explanation. The first,

```
PKUNZIP OLDBILLS MONTHLY.OLD
```

extracts a backup of your exported transactions from an archive. Don't worry if this file doesn't yet exist the first time you run this event — the event batch file will create it automatically when the output file is created.

The next command,

```
TYPE MONTHLY.OUT >> MONTHLY.OLD
```

appends last week's invoice output file to an archive file named MONTHLY.OLD. Notice the DOS "redirection" command to send output to a file instead of to the console — for information on this and other DOS file handling functions, review your DOS manual.

The third command,

```
PKZIP OLDBILLS MONTHLY.OLD -um
```

updates the compressed file named OLDBILLS.ZIP, and puts your newly appended archive inside it. The command line argument -um *must* be in lower case, exactly as typed. This will **update** any existing file of the same name inside the ZIP file, then **move** the source file inside the ZIP, deleting the original.

Now log onto *Wildcat!* and go to the Sysop menu, and use the Edit Event menu command to create an event that runs every day during a non-busy period on your BBS.

Review the section on Events in Chapter 5 of your *Wildcat!* Sysop Guide if you are not familiar with the procedure for creating events. The following table shows the information needed to run the event correctly:

Field	Value
Type of Event	3. Run a batch file
Schedule to run event	Monthly
Day of month to run event	If you want this event to run at the end of every month, enter 31. *Wildcat!* will automatically compensate for short months and run the event on the last day.
Execution method	Optional. Soft or Flexible events are most convenient to your callers, Hard events take place precisely on schedule but may interrupt a caller's on-line time.
Method of execution	Optional. Shell for fastest processing, Terminate for maximum memory.
Path/Name of batch file to execute	`C:\WILDCAT\BATCH\MONTHLY.BAT`

4 - Reference

In every well-governed state, wealth is a sacred thing.
In democracies, it is the only sacred thing.

Anatole France

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Files used by wcBILLING

Filename	Location	Notes
<filename>.CFG	\WILDCAT\BILLING	Billing profile
<filename>.CNF	\WILDCAT\BILLING	Conference billing rate
<filename>.DOR	\WILDCAT\BILLING	Door billing rate
<filename>.FAR	\WILDCAT\BILLING	File area billing rate
<filename>.BCF	\WILDCAT	Billing Command File
<filename>.TPL	\WILDCAT	Billing Template File
<filename>.BTM	\WILDCAT	Billing Transaction Match filter
<filename>.BEX	\WILDCAT	Transaction list output file
<filename>.BIM	\WILDCAT	Import text file
<filename>.RPT	\WILDCAT\BILLING	Report profile
<filename>.*	\WILDCAT	Report output file (user-definable)
BILLING.###	\WILDCAT\BILLING	Transaction log, extension is node ID number
BILLING.BIN	\WILDCAT\WCWORK\NODE#	Data file created when terminating to run a door.
BILLING.DAT	\WILDCAT\BILLING	Transaction database file
BILLING.IX	\WILDCAT\BILLING	Transaction database index
BILLING.SUP	\WILDCAT\BILLING	Numeric/Currency format config file
BILL1.BBS BILL2.BBS	Conference display path	Displayed during logon when caller's credit account reaches threshold specified in billing profile.
WCBILL.LOG	\WILDCAT	Error log. Records errors and system crash messages. Look here first for analysis of problem if *wcBILLING* fails to operate correctly.
WCBILL.EXE	\WILDCAT	Executable program file
WCBILL.OVR	\WILDCAT	Program overlay file

Command line parameters

Option	Notes
/M	Force monochrome mode
/C	Force color mode
/5	Force 50 line mode (VGA)
<filename>.BCF	Run command file
REBUILD	Pack/Rebuild transaction database

Output file formats

DBF

Field name	Type	Length	Notes
NUMBER	Numeric	10	Transaction number
NAME	Character	25	Caller's first and last names
USERID	Numeric	10	Caller's unique User ID number
PROCESSED	Logical	1	Yes/No/Both
DATE	Date	8	Date this transaction was recorded
TIME	Time	8	Time this transaction was recorded
NODEID	Numeric	3	Transaction took place on this node number
COST	Numeric	6	Cost of this transaction
TYPE	Character	19	Type of transaction
COMMENT	Character	70	Memo field for this transaction.
PROCDATE	Date	8	Date this transaction was processed
PROCTIME	Time	8	Time this transaction was processed

Comma delimited

Field name	Notes
Number	Transaction number
Profile	Billing profile
User Name	Caller's first and last names
User Id	Caller's unique User ID number
Transaction Date	Date this transaction was recorded, format from *MAKEWILD*
Transaction Time	Time this transaction was recorded, format from *MAKEWILD*
Node ID	Transaction took place on this node number
Transaction Cost	Cost of this transaction
Transaction Type	Type of transaction
Processed	Yes/No/Both
Processed Date	Date this transaction was processed, format from *MAKEWILD*
Processed Time	Time this transaction was processed, format from *MAKEWILD*
Comment1	Memo field for this transaction.

Fixed Length

Field name	Length	Notes
Number	11	Transaction number
Profile	9	Billing profile
User Name	26	Caller's first and last names
User Id	11	Caller's unique User ID number
Transaction Date		Date/Time
Transaction Time		Date/Time format from *MAKEWILD*
Node Id	4	Transaction took place on this node number
Transaction Cost	8	Cost of this transaction
Transaction Type	20	Type of transaction
Processed	4	Yes/No/Both
Processed Date		Date this transaction was processed, format from *MAKEWILD*
Processed Time		Time this transaction was processed, format from *MAKEWILD*
Comment1	70	Memo field for this transaction.

Template macros

You can use the following macros in template files. The proper format is

@MACRO<*position*><*length*>@

Position and length codes are optional, and allow you to format and trim the macro results to position them on the page. See the table following this one for a list of position and length macros.

Macro	Maintained by	Description
@ACCBAL@	*Wildcat!*	Account balance
@ADDR1@	*Wildcat!*	Address 1
@ADDR2@	*Wildcat!*	Address 2
@ALIAS@	*Wildcat!*	Alias name
@BALLEFT@	*Wildcat!*	Number of credits left in credit account.
@BBS@	*Wildcat!*	BBS name from *MAKEWILD*
@BCOMMENT@	*wcBILLING*	Comment on this transaction
@BCOST@	*wcBILLING*	Cost of this transaction in credits
@BDATE@	*Wildcat!*	Birthday
@BDATETIME@	*wcBILLING*	Billing Date & time in *MAKEWILD* Date & Time format
@BGETNEXT@	*wcBILLING*	Get next transaction
@BGRNDTOTAL@	*wcBILLING*	Grand Total
@BNODEID@	*wcBILLING*	Node this transaction occurred on
@BNUMBER@	*wcBILLING*	Transaction Number.
@BPDATE@	*wcBILLING*	Date this transaction was processed.
@BPDATETIME@	*wcBILLING*	Date & Time this transaction was processed
@BPROC@	*wcBILLING*	Processed?
@BPROFILE@	*wcBILLING*	Billing Profile
@BPTIME@	*wcBILLING*	Time this transaction was processed.

Macro	Maintained by	Description
@BTBALEXCST@	*wcBILLING*	Total value of "Balance Expired" transactions for this session
@BTBALEXTOT@	*wcBILLING*	Total number of "Balance Expired" transactions for this session
@BTDATE@	*wcBILLING*	Billing date in *MAKEWILD* date format.
@BTDATTCST@	*wcBILLING*	Total value of "Download Attachment" transactions for this session
@BTDATTTOT@	*wcBILLING*	Total number of "Download Attachment" transactions for this session
@BTEDOORCST@	*wcBILLING*	Total value of "Entered Door" transactions for this session
@BTEDOORTOT@	*wcBILLING*	Total number of "Entered Door" transactions for this session
@BTFDNCST@	*wcBILLING*	Total value of "File Download" transactions for this session
@BTFDNTOT@	*wcBILLING*	Total number of "File Download" transactions for this session
@BTFUPCST@	*wcBILLING*	Total value of "File Upload" transactions for this session
@BTFUPTOT@	*wcBILLING*	Total number of "File Upload" transactions for this session
@BTIME@	*wcBILLING*	Billing time in *MAKEWILD* time format.
@BTLOGOFCST@	*wcBILLING*	Total value of "Logoff" transactions for this session
@BTLOGOFTOT@	*wcBILLING*	Total number of "Logoff" transactions for this session
@BTLOGONCST@	*wcBILLING*	Total value of "Logon" transactions for this session
@BTLOGONTOT@	*wcBILLING*	Total number of "Logon" transactions for this session

Macro	Maintained by	Description
@BTMISCCST@	*wcBILLING*	Total value of "Miscellaneous" transactions for this session
@BTMISCTOT@	*wcBILLING*	Total number of "Miscellaneous" transactions for this session
@BTMSGRCST@	*wcBILLING*	Total value of "Message Read" transactions for this session
@BTMSGRTOT@	*wcBILLING*	Total number of "Message Read" transactions for this session
@BTMSGWCST@	*wcBILLING*	Total value of "Message Written" transactions for this session
@BTMSGWTOT@	*wcBILLING*	Total number of "Message Written" transactions for this session
@BTPAYMCST@	*wcBILLING*	Total value of "Payment" transactions for this session
@BTPAYMTOT@	*wcBILLING*	Total number of "Payment" transactions for this session
@BTRDOORCST@	*wcBILLING*	Total value of "Exited Door" transactions for this session
@BTRDOORTOT@	*wcBILLING*	Total number of "Exited Door" transactions for this session
@BTTOTLTRNS@	*wcBILLING*	Total transactions for this session
@BTUATTCST@	*wcBILLING*	Total value of "Upload Attachment" transactions for this session
@BTUATTTOT@	*wcBILLING*	Total number of "Upload Attachment" transactions for this session
@BTYPE@	*wcBILLING*	Type of transaction
@BUBALEXCST@	*wcBILLING*	Total value of "Balance Expired" transactions for this user
@BUBALEXTOT@	*wcBILLING*	Total number of "Balance Expired" transactions for this user

Macro	Maintained by	Description
@BUDATTCST@	*wcBILLING*	Total value of "Download Attachment" transactions for this user
@BUDATTTOT@	*wcBILLING*	Total number of "Download Attachment" transactions for this user
@BUEDOORCST@	*wcBILLING*	Total value of "Entered Door" transactions for this user
@BUEDOORTOT@	*wcBILLING*	Total number of "Entered Door" transactions for this user
@BUFDNCST@	*wcBILLING*	Total value of "File Download" transactions for this user
@BUFDNTOT@	*wcBILLING*	Total number of "File Download" transactions for this user
@BUFUPCST@	*wcBILLING*	Total value of "File Upload" transactions for this user
@BUFUPTOT@	*wcBILLING*	Total number of "File Upload" transactions for this user
@BULOGOFCST@	*wcBILLING*	Total value of "Logoff" transactions for this user
@BULOGOFTOT@	*wcBILLING*	Total number of "Logoff" transactions for this user
@BULOGONCST@	*wcBILLING*	Total value of "Logon" transactions for this user
@BULOGONTOT@	*wcBILLING*	Total number of "Logon" transactions for this user
@BUMISCCST@	*wcBILLING*	Total value of "Miscellaneous" transactions for this user
@BUMISCTOT@	*wcBILLING*	Total number of "Miscellaneous" transactions for this user
@BUMSGRCST@	*wcBILLING*	Total value of "Message Read" transactions for this user

Macro	Maintained by	Description
@BUMSGRTOT@	*wcBILLING*	Total number of "Message Read" transactions for this user
@BUMSGWCST@	*wcBILLING*	Total value of "Message Written" transactions for this user
@BUMSGWTOT@	*wcBILLING*	Total number of "Message Written" transactions for this user
@BUPAYMCST@	*wcBILLING*	Total value of "Payment" transactions for this user
@BUPAYMTOT@	*wcBILLING*	Total number of "Payment" transactions for this user
@BURDOORCST@	*wcBILLING*	Total value of "Exited Door" transactions for this user
@BURDOORTOT@	*wcBILLING*	Total number of "Exited Door" transactions for this user
@BUSERID@	*wcBILLING*	User Id for this transaction.
@BUTOTLTRNS@	*wcBILLING*	Total transactions for this user
@BUUATTCST@	*wcBILLING*	Total value of "Upload Attachment" transactions for this user
@BUUATTTOT@	*wcBILLING*	Total number of "Upload Attachment" transactions for this user
@CALLS@	*Wildcat!*	Total number of logons
@CITY@	*Wildcat!*	City
@COMPANY@	*Wildcat!*	Company
@CPU@	*Wildcat!*	Computer type
@DATA@	*Wildcat!*	Data phone number
@DATE@	*Wildcat!*	Today's date
@DAYBYTES@	*Wildcat!*	Daily download K
@DOWNK@	*Wildcat!*	Total download K
@DOWNS@	*Wildcat!*	Total number of downloads

Macro	Maintained by	Description
@EOP@	*wcBILLING*	Implicit end of page. Don't process any further in this file
@EXDATE@	*Wildcat!*	Expiration date
@EXPDAYS@	*Wildcat!*	Days until user's expiration date
@FAX@	*Wildcat!*	Caller's fax number from user record
@FIRST@	*Wildcat!*	First name of caller
@FROM@	*Wildcat!*	Location of caller
@LAST@	*Wildcat!*	Last name of caller
@LASTNEW@	*Wildcat!*	Last new files search date
@LASTON@	*Wildcat!*	Date of last call
@MEMO@	*Wildcat!*	Memo date
@MEMO1@	*Wildcat!*	Comment 1 from user record
@MEMO2@	*Wildcat!*	Comment 2 from user record
@MEMO3@	*Wildcat!*	Comment 3 from user record
@MEMO4@	*Wildcat!*	Comment 4 from user record
@MEMO5@	*Wildcat!*	Comment 5 from user record
@MSGSLEFT@	*Wildcat!*	Total number of messages posted
@NETBAL@	*Wildcat!*	Netmail balance
@NOLINE@	*wcBILLING*	Don't print this line if it is blank after processing it.
@PHONE@	*Wildcat!*	Phone number
@SEC@	*Wildcat!*	Security profile
@SINCE@	*Wildcat!*	Date of first call
@STATE@	*Wildcat!*	State
@SUBTOTAL@	*wcBILLING*	Subtotal (prior to any adjustments)
@SYSOP@	*Wildcat!*	Sysop name from *MAKEWILD*
@TIME@	*Wildcat!*	Time on system this call
@UPK@	*Wildcat!*	Total upload kilobytes

Macro	Maintained by	Description
@UPS@	*Wildcat!*	Total number of uploads
@USER@	*Wildcat!*	Full name
@USERID@	*Wildcat!*	Unique User ID for caller
@VER@	*Wildcat!*	*Wildcat!* version from *MAKEWILD*
@ZIP@	*Wildcat!*	Zip code

The following codes allow you to position, pad and trim the results of each macro in your output files. Use these positioning and length macros to format your results for any page layout you choose.

Position and length	Operation
@*MACRO*<10@	Flush left and truncate or pad to 10 characters.
@*MACRO*>10@	Flush right and truncate or pad to 10 characters.
@*MACRO*^10@	Center and truncate or pad to 10 characters.

Using wcCODE with wcBILLING

You can add *wcBILLING* support to *wcCODE* applications with the following *wcCODE* functions. *wcCODE* version 4.11 or higher is required in order to create and compile *wcBILLING*-compatible applications.

For a more detailed explanation of each of these *wcCODE* functions, review your *wcCODE* manual and on-line help, and your README.WCC files.

`AddToBillingLog(Comment as string, Transaction as byte, Cost as word) as Boolean`

Adds transaction to billing activity log

`AddTransaction(TRec as TransactionRecord) as Boolean`

Adds new transaction record to transaction database

`BillConfRead(Conf as Word) as Boolean`

Returns true or false depending on whether user has enough credits to read messages from this conference.

`BillConfWrite(Conf as Word) as Boolean`

Returns true or false depending on whether user has enough credits to write a message in this conference.

`BillDoorAccess(Door as Word) as Boolean`

Returns true or false depending on whether user has enough credits to access door

`BillDownload(area as word, size as long) as Boolean`

Returns true or false depending on whether user has enough credits to download a file of set size from area

`BillingActive as Boolean`

Returns true if the system is using the billing package.

`BillUpload(area as Word) as Boolean`

Returns true or false depending on whether user has enough credits to upload into this area

`CreditsLeft as Long`

Returns the credits left for the current user in the billing package.

`GetFirstTransAction(TRec as TransactionRecord) as Boolean`

Loads first transaction record from transaction database.

`GetNextTransAction(TRec as TransActionRecord) as Boolean`

Loads next transaction record from transaction database.

Transaction Record Structure

```
const ttFileDownload = 0
const ttFileUpload = 1
const ttLogin = 2
const ttLogOff = 3
const ttEnterDoor = 4
const ttReturnFromDoor = 5
const ttMessageWritten = 6
const ttMessageRead = 7
const ttBalanceExpired = 8
const ttDownloadAttach = 9
const ttUploadAttach = 10
const ttPayment = 11
const ttMiscellaneous = 12
```

```
// The following is for reference.  This is already defined
// intrinsically in the compiler
// type TransactionRecord
//   Number          As Long        // Should not be edited.
//                                  // Unique identifier
//   Processed       As Byte        // Has this record been processed?
//   Profile         As String * 8  // Billing Profile used for this
//                                  // transaction
//   UserName        As String * 25 // Name of user this record
//                                  // processes
//   UserId          As Long        // UserId of user
//   DT              As DateTimeRec // Date & Time created
//   NodeId          As Integer     // Node Id
//   TransactionCost As Integer     // Cost of this transaction
//   TransactionType As Byte        // Type of Transaction
//   Comment1        As String * 70 // Comment string
//   ProcessedDate   As DateTimeRec // Date & Time processed
// end type
```

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